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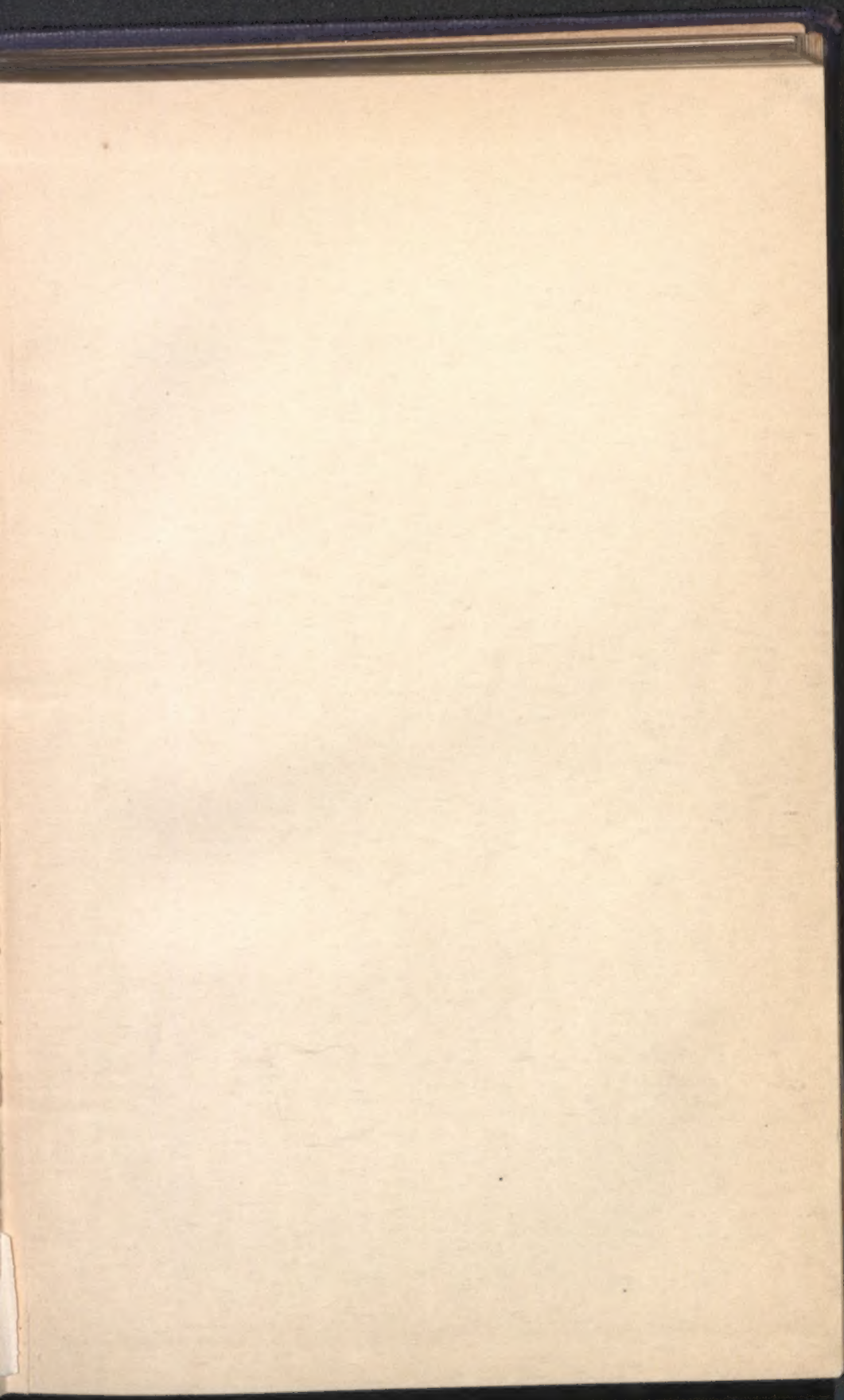
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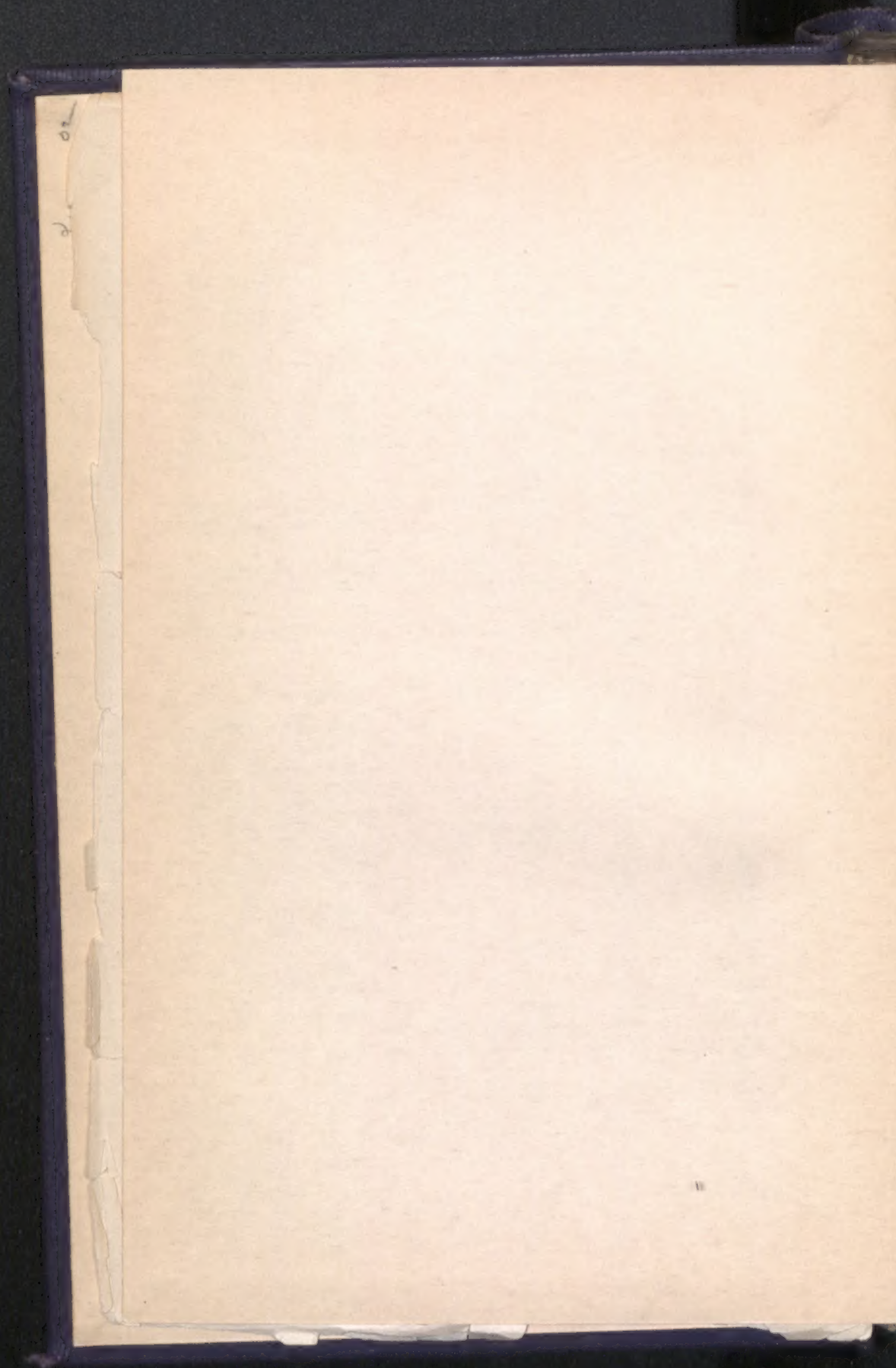
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1903-04



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THE COLUMBIAN UNIVERSITY,  
WASHINGTON, D. C.

ANNOUNCEMENTS, 1903-'04.

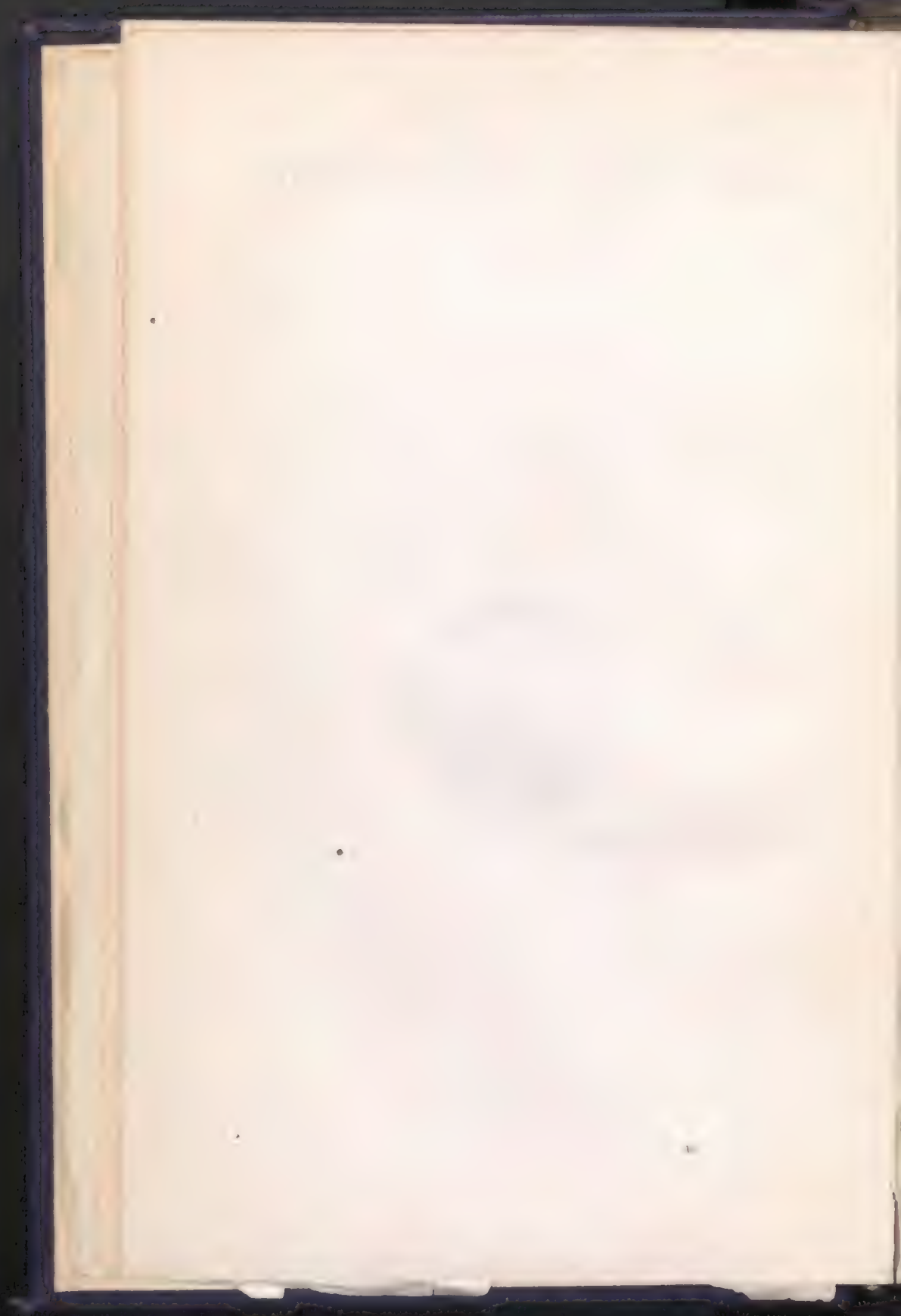


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1903.

## JULY.

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## CALENDAR.

ACADEMIC YEAR, 1903-04.

### SUMMER VACATION.

1903.

Sept. 25-29, *Friday to Tuesday*.—Examinations for Admission to Department of Arts and Sciences.

Sept. 28, *Monday*.—Fall Examinations in the Departments of Medicine and Dentistry.

Sept. 30, *Wednesday*.—Academic Year begins in Department of Arts and Sciences.

Oct. 1, *Thursday*.—Academic Year begins in Departments of Medicine and Dentistry.

Oct. 5, *Monday*.—Academic Year begins in Department of Law.

Oct. 6, *Tuesday*.—Academic Year begins in Department of Jurisprudence and Diplomacy.

Nov. 26-28, *Thursday to Saturday*, inclusive.—Thanksgiving recess.

RECESS FROM DECEMBER 24, 1903, to JANUARY 4, 1904, INCLUSIVE.

1904.

Jan. 30, *Saturday*.—Mid-Year Examinations completed in the Department of Arts and Sciences.

Feb. 1, *Monday*.—Second Term begins.

Feb. 22, *Monday*.—Washington's Birthday; a holiday.

March 5, *Saturday*.—Annual Meeting of the Alumni Association.

April 1-4, *Friday to Monday*, inclusive.—Easter holidays.

April 6, *Wednesday*.—Davis Prize Speaking.

May 2, *Monday*.—Last day on which Theses may be presented.

May 18, *Wednesday*.—Examinations for Degrees completed.

May 23, *Monday*.—Doctorate Disputation.

May 29, *Sunday*.—Baccalaureate Sermon.

May 27-31, *Friday to Tuesday*.—Examinations for admission to the Department of Arts and Sciences.

May 30, *Monday*.—Commencement of the Departments of Medicine and Dentistry.

May 31, *Tuesday*.—Final Examinations completed and session closed in the Department of Arts and Sciences.

May 31, *Tuesday*.—Commencement of the Departments of Law, Jurisprudence and Diplomacy.

June 1, *Wednesday*.—Commencement of the Department of Arts and Sciences.



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# The Columbian University.

## EDUCATIONAL ADVANTAGES OF WASHINGTON.

THE COLUMBIAN UNIVERSITY in the City of Washington was chartered by Congress in 1821. It comprises the following departments :

DEPARTMENT OF ARTS AND SCIENCES.

[UNDERGRADUATE AND GRADUATE.]

DEPARTMENT OF MEDICINE.

DEPARTMENT OF DENTISTRY.

DEPARTMENT OF LAW.

DEPARTMENT OF JURISPRUDENCE AND DIPLOMACY.

## The Columbian University and the High-School System.

Washington is the natural center for university studies based on the High-School system of the United States. The Columbian University, in recognition of this fact, has reorganized its educational work in order to admit to its Department of Arts and Sciences the graduates of all approved high schools upon their certificates of graduation. This University begins the higher education with the student where the high school leaves him, and thus by correlating its work with the national system of education it seeks a national constituency. The conditions of life in the national capital facilitate the growth of an educational institution that in organization and purpose and spirit embodies American ideas and ideals. The Columbian University aims to be such an institution, offering undergraduate and graduate courses in the arts and sciences and courses of professional study in medicine, in dentistry, in law, in jurisprudence and diplomacy. The geographical distribution of Columbian students is an evidence of the national character and significance of the University. The geographical distribution of students enrolled for the academic year 1902-03 was as follows:



## Geographical Distribution of Students.

Alabama .....	7	Philippine Islands.....	4
Arkansas ..	7	Porto Rico.....	1
California.....	7	Rhode Island .....	1
Colorado.....	6	South Carolina.....	5
Connecticut .....	10	South Dakota.....	6
Delaware .....	1	Tennessee ....	10
District of Columbia.....	367	Texas .....	18
Florida .....	4	Utah .....	3
Georgia. ....	10	Vermont.....	5
Hawaii .....	1	Virginia.....	91
Idaho .....	6	Washington. ....	3
Illinois .....	39	West Virginia .....	13
Indiana .....	30	Wisconsin .....	30
Indian Territory .....	1	Wyoming .....	3
Iowa ..	23	Argentine Republic .....	1
Kansas .....	14	Armenia .....	1
Kentucky.....	19	Canada .....	2
Louisiana .....	7	China .....	3
Maine.....	19	Colombia .....	2
Maryland .....	83	Cuba .....	3
Massachusetts.....	37	Denmark .....	1
Michigan .....	30	England.....	1
Minnesota ..	24	Germany ..	2
Mississippi.....	10	Italy .....	1
Missouri.....	18	Japan.....	2
Montana.. .	2	Mexico.....	2
Nebraska .....	9	New Brunswick.....	1
New Hampshire.....	9	Peru.....	4
New Jersey ..	13	Russia .....	2
New York .....	75	Spain.....	1
North Carolina..	24	Sweden .....	1
North Dakota .....	5	Switzerland.....	1
Ohio .....	52	Turkey.....	1
Oklahoma.....	4	Uruguay.....	1
Oregon.....	7		
Pennsylvania .....	83	Total .....	1,298

## For Undergraduate Students.

To the undergraduate student Washington offers unrivalled opportunities for study. It possesses the academic atmosphere. The absence of commercial and manufacturing activity, the presence in Washington of the largest body of scientific inves-

tigators in the country, the discussion of public questions, the spirit of nationalism, and the broad intellectual life constitute a humanizing influence of the greatest value in the development of the American scholar.

To students of science Washington is attractive, since the Government makes an annual appropriation of several millions of dollars for maintaining scientific work, which in its several departments has its headquarters here. The Washington Academy of Sciences and the eleven affiliated societies have, in 1903, a membership of 2,158. All branches of the physical and natural sciences are cultivated here, and the results of investigations are exhibited.

At a recent university opening, the Professor of Zoölogy, describing the vast resources for the student afforded by the Government collections and speaking with special reference to zoölogy, said :

"If we visit the Smithsonian Institution and enter the chapel on the west end, we shall at first glance imagine ourselves transported to some submarine place, for here are exhibited the various forms of invertebrates, excluding the insects, mostly marine, ranging in size from the tiny protozoan to the monstrous giant cuttle-fish, all systematically arranged.

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"Here we find excellent glass models of that tiny unicellular organism which is ever of interest to the biologist carefully—yes, wonderfully—blown, magnifying the amoeba, which is scarcely  $\frac{1}{16}$  of an inch in diameter, to a size of several inches, but showing each detail just as you would be prepared to see it under the microscope.

\* \* \* \* \*

"Among the Coelenterates there is a magnificent display of those extremely delicate, translucent forms, known to you perhaps as sea-nettles, jelly-fishes, or medusæ, whose preservation has only recently been made possible by the use of formaldehyde; and as for corals, why, the entire evening would scarcely suffice to give you an adequate idea of that assemblage of specimens which adorn the shelves. Then you have the Echinoderms, those spine-armed fellows which you may know better as star-fishes, sea-urchins, sand-dollars, sea-cucumbers, and crinoids or sea-lilies.

\* \* \* \* \*

"The main hall is largely devoted to the birds, and this collection embraces a splendid series of North American individuals; even the Great Auk and the Labrador Duck, birds which once were fairly abundant, but which, through the agency of man, have become wholly exterminated,



are here represented. Nor is this all, for there are foreign sections embracing the various other zoo-geographical realms, each showing its own peculiar avifauna.

"If we extend our zoölogical researches to the National Museum we shall find one entire hall of the southeast range devoted to a collection of wonderfully life-like casts of fishes, reptiles, and amphibians, while another contains a mounted representative series of North American and foreign mammals. Then there is the hall of comparative anatomy, where we find prepared skeletons of all the vertebrate groups so nicely displayed that you can make comparison without difficulty of the structural elements of each. Homologic series of structures representing the modifications of certain organs fill an entire range of cases and enable you to see at once the changes which they have undergone in the different individuals to fit them to the particular environment under which each is existing, while another part of the collection illustrates how profoundly changed even the skeletal structures may become when man enters the field and applies artificial selection. It is a hall full of problems of the deepest significance, for in these characters most of our classification finds its basis."

#### For Graduate Students.

There is hardly a branch of human activity that is not to some degree taken cognizance of by the National Government. Consequently, there are to be found, in the archives of the State and other Departments and in the statistical bureaus of these Departments, extensive accumulations of original historical documents and data which are invaluable to graduate students in history, political science, economics, sociology, and the allied topics of research. The great Library of Congress, the Public Library of the District of Columbia, and the many highly specialized libraries attached to the various Departments of the Government are made easily accessible by well-designed catalogues.

Hon. Herbert Putnam, LL.D., the Librarian of Congress, in an address at the Commencement of the Department of Arts and Sciences in 1903, spoke of the library resources of Washington as follows:

"There are thus in the city of Washington *thirty-four* governmental libraries freely available for research. These libraries now contain in the aggregate over two million books and pamphlets and over a half million other articles literary in character—manuscripts, maps, music, and prints. If we add to them the contents of the District Library and of

the libraries of private associations and institutions \* \* \* we shall have a total not merely greater than is to be found in any other city of this size in the world, but one which in proportion to population represents several times as many volumes *per capita* as exist for public use in any other city of the world.

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"Today the Library of Congress is a collection, including duplicates, of over 1,100,000 books and pamphlets and nearly half a million other articles. It is housed in a building devoted to its sole use—the largest library building in the world, the most commodious, the most efficient in equipment for the work which it has to do; a building which provides for ample classification and display of the material, for reasonable growth, and for a multitude and great variety of service; a building which may accommodate a thousand readers at a time and differentiate them to their best advantage."

The Library of Congress offers every inducement to instructors and graduate students to avail themselves of the rich facilities there afforded in the pursuit of their special investigations. In the collections of the National Museum, the Smithsonian Institution, the Army Medical Museum, the Museum of Naval Hygiene, and the departmental museums are found extensive series of specimens, many of them "types" of great value to the student of anthropology, archæology, mineralogy, geology, paleontology, biology in all its branches, and other topics for research. In the Patent Office are the records of the many inventions that have contributed so materially during our national existence to modify the conditions under which we live.

In the experimental sciences the most notable advantages are to be found, since it is in Washington that the Weather Bureau, with its appliances for the study of national problems in meteorology, is centered; the Coast and Geodetic Survey, from which the surveys of our territory are carried on and by which the figure of the earth and terrestrial magnetism are experimentally determined; the Hydrographic Bureau, which conducts the surveys of foreign coasts and the study of the oceans; the Bureau of Standards, which standardizes the instruments used in measuring mass, volume, heat, light, electricity, and all other magnitudes; the Geological Survey, which investigates the structure of the earth, ascertains our mineral re-



sources, and supervises the sources of supply and means for distribution and control of water for irrigation purposes; the Department of Agriculture, which exists primarily for conducting original investigations for the benefit of agriculture in all its branches, and is therefore provided with extensively equipped laboratories for the study of chemistry, botany, vegetable physiology, entomology, bio-chemistry, bacteriology, comparative pathology, parasitology, the physics and chemistry of the soil, forestry, and microscopy; the Naval Observatory and Nautical Almanac Office, where researches in astronomy and navigation are conducted; the Marine Hospital Service, which deals with national problems in hygiene; the Bureaus of Construction and of Steam Engineering of the Navy, having supervision over the designs and construction of our ships; the Bureau of Yards and Docks, having supervision over the engineering operations at our navy yards and naval stations; the Bureau of Equipment, which is charged with the electrical installations for the Navy; the U. S. Signal Corps, which has supervision over the electrical installations for the Army; the Engineer Corps of the Army, which is charged with the river and harbor improvements throughout our domain, and the Light-house Board, which controls the system for lighting our navigable waters.

Of chemical laboratories for conducting the tests of materials, and especially for research work, there are now eighteen attached to the different departments at Washington. In the graphic arts there is especial activity, as map-making and chart-work is carried on in almost every bureau, while the Supervising Architect's Office of the Treasury Department is the largest office of its kind in the country. The student of pedagogy will find here abundant material collected by the U. S. Bureau of Education, while the mechanical engineer will be especially interested in the gun shops at the Navy Yard.

In view of the fact that in collecting archives and materials it was the original purpose of the Government "to promote research and the diffusion of knowledge," the Congress of the United States has made these treasures accessible to students

under the terms of the following joint resolution, approved April 12, 1892:

*"Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:*

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."

#### For Students of Medicine and Dentistry.

To students of Medicine and of Dentistry there are excellent facilities for study and research. The Army Medical Museum, which is open for inspection daily, presents a field for study superior to any other institution of the kind, either in this country or in Europe. Its library of medical books and periodicals is the best in the world. It has an unrivalled collection of anatomical and pathological specimens, illustrating normal anatomy and the results of disease in every form, and an almost unlimited number of other preparations showing the effect of gunshot wounds and surgical injuries of every kind. It also contains almost numberless crania of every human nationality, by an examination of which the student can find many dentures of theoretical perfection, and observe



the effect of civilization and race admixture upon the dental organs. In Washington is published the well-known *Index Medicus*. At the United States Patent Office are models of every conceivable form of dental instruments. In the National Museum is found the most complete and best arranged collection of *Materia Medica* in the world. The drugs are shown in all their processes of manufacture, from the original package to the delicate alkaloid constituting the active principle.

An extensive new laboratory is being equipped for the Marine Hospital and Public Health Service. This is the national health department of the Government. In this laboratory and in the laboratories of the Department of Agriculture there are superior facilities for all kinds of bacteriological and chemical investigations, and for the study of bio-chemistry, comparative pathology, and parasitology. The new laboratories and hospitals of the Army and the Navy also offer many opportunities for instruction.

#### For Students of Law, Jurisprudence and Diplomacy.

To students of Law, Jurisprudence and Diplomacy the peculiar advantages of Washington are manifest. The Supreme Court is in session from October to May, and on each Monday morning delivers opinions orally. Students may listen to these and thus keep in touch with the latest utterances of the greatest court. The State Department, with its large library, affords facilities for the study of diplomacy. Congress is in session during the winter, and here the student sees the practical workings of the largest and most important legislative body, and listens to the discussion of matters touching interstate and foreign commerce and diplomatic relations. In Washington one comes into contact with the practical workings of the National Government in all its parts, and may secure the views and advice of practical men in all the great departments. Many of the lecturers in the Departments of Law and Jurisprudence and Diplomacy occupy the most important official positions in the gift of the nation and speak from a practical knowledge of the subjects they teach.

## Department of Arts and Sciences.

### UNDERGRADUATE AND GRADUATE.

#### ADMISSION.

The session of 1903-1904 begins Wednesday, September 30, 1903.

The Department of Arts and Sciences is open to young men and young women.

The main building of the University, in which most of the courses of study in this Department are conducted, is University Hall, corner Fifteenth and H streets, N. W.

Every applicant for admission is required to present a testimonial of good moral character, and also a certificate of standing and regular dismissal from the school or college which he has attended or from the tutor with whom he has studied.

Candidates for admission to the Freshman Class may present certificates of admission or take an examination in the required books and subjects. Certificates, in lieu of any or all examinations, will be accepted (1) from schools whose work is attested by well-prepared students admitted to the University in previous years, and (2) from schools desiring coöperation with the University, that present evidence of affording adequate preparation in the required books and subjects. The Corresponding Secretary will, on application, furnish certificate blanks to the principals of such accredited schools.

The certificate of the College Entrance Examination Board for the Middle States and Maryland will be accepted in so far as the subjects specified meet the requirements for admission.

The certificate of the Washington High Schools covering all the requirements for admission admits students without examination to the courses of the Freshman year.

The certificates of all schools accredited to the University will be accepted in so far as they specifically meet the requirements for admission.

The general requirement for admission is a four-year High School course, or its equivalent, consisting usually of four or five recitations per week in four or more topics. The High



School studies which may be presented in satisfaction of the requirements of admission are given in the adjoining table, the unit being four or five recitations per week for one school year. The figures show the relative value of each subject. The list is substantially that set forth in Document No. 8 of the College Entrance Examination Board.

## LIST OF PREPARATORY SUBJECTS FOR EXAMINATION

	Units.		Units.
English . . . . .	4	History :	
Latin :		Ancient . . . . .	1
Elementary . . . . .	2	Mediaeval and Modern . . . . .	1
Intermediate . . . . .	1	English . . . . .	1
Advanced . . . . .	1	American . . . . .	1
Greek :		Mathematics :	
Elementary . . . . .	2	Elementary Algebra . . . . .	1
Advanced . . . . .	1	Advanced Algebra . . . . .	$\frac{1}{2}$
French :		Plane Geometry . . . . .	1
Elementary . . . . .	2	Solid Geometry . . . . .	$\frac{1}{2}$
Intermediate . . . . .	1	Plane Trigonometry . . . . .	$\frac{1}{2}$
Advanced . . . . .	1	Physics . . . . .	1
Spanish . . . . .	2	Chemistry . . . . .	1
German :		Botany . . . . .	1
Elementary . . . . .	2	Zoölogy . . . . .	1
Intermediate . . . . .	1	Physiography . . . . .	1
Advanced . . . . .	1	Drawing . . . . .	1

## TERMS OF ADMISSION TO BACHELOR OF ARTS COURSES.

Candidates for admission to the courses leading to the degree of Bachelor of Arts are required to present subjects from the list of High School studies aggregating fifteen units, distributed as follows :

	Units.
English . . . . .	4
Latin . . . . .	4
Greek <i>or</i>	
French and German <i>or</i>	3
French <i>or</i> German	
Elementary Algebra . . . . .	1
Plane Geometry . . . . .	1
Electives . . . . .	2

## TERMS OF ADMISSION TO BACHELOR OF SCIENCE COURSES.

Candidates for admission to the courses leading to the degree of Bachelor of Science are required to present subjects from the list of High School studies aggregating fifteen units, distributed as follows :

	Units.
English . . . . .	4
French or German . . . . .	2
Elementary Algebra . . . . .	1
Plane Geometry . . . . .	1
Physics . . . . .	1
Chemistry . . . . .	1
Electives . . . . .	5
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	15

## EXAMINATIONS FOR ADMISSION.

The regular examination for admission to the First-year Class is held in University Hall, southeast corner of Fifteenth and H streets, N. W., in May. A second examination is held at the beginning of the college year, in September. The following is the schedule for this examination :

*September 25, 1903.*

Registration of Applicants . . . . .	8.30- 9.00
Latin ; Advanced French or German . . . . .	9.00-11.00
Plane Geometry . . . . .	11.00- 1.00
Elementary Algebra . . . . .	2.00- 4.00

*September 26.*

Greek ; Physics . . . . .	9.00-11.00
History . . . . .	11.00- 1.00
German . . . . .	2.00- 4.00

*September 28.*

Plane Trigonometry . . . . .	9.00-11.00
French . . . . .	11.00- 1.00
English . . . . .	2.00- 4.00

*September 29.*

Advanced Algebra . . . . .	9.00-11.00
Solid Geometry . . . . .	11.00- 1.00
Chemistry . . . . .	2.00- 4.00



Subjects offered for admission, but not named in the schedule of examinations, will be arranged for as occasion arises.

The University is prepared to appoint examinations in any city, or at any school where the number of applicants or the distance from Washington may warrant it. Correspondence on this subject should be addressed to the Corresponding Secretary of the University.

Unless admitted by certificate, every undergraduate candidate for a degree is required to pass an examination.

### DEFINITION OF REQUIREMENTS.

#### ENGLISH.

(Counting four units.)

Candidates are expected to be familiar with the elements of rhetoric, and no candidate will be accepted whose work is obviously defective in spelling, punctuation, idiom, or division into paragraphs.

The examination in English consists of two parts, one to test general reading, the other to show the results of more careful study and practice.

1. *Reading and Practice.* The candidate will be required to write a paragraph or two on each of several topics chosen by him from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The candidate should read all the prescribed books, but knowledge of them will be regarded as less important than ability to write good English.

The books set for this part of the examination are:

1903 to 1905: Shakespeare's *Merchant of Venice* and *Julius Cæsar*; The *Sir Roger de Coverley Papers* in the *Spectator*; Goldsmith's *The Vicar of Wakefield*; Coleridge's *The Rime of the Ancient Mariner*; Scott's *Ivanhoe*; Carlyle's *Essay on Burns*; Tennyson's *The Princess*; Lowell's *The Vision of Sir Launfal*; George Eliot's *Silas Marner*.

2. *Study and Practice.* This part of the examination presupposes the thorough study of each of the works named. It involves knowledge of the subject-matter, literary form, literary history, grammatical and logical structure.

The books set for this part of the examination are:

1903 to 1905: Shakespeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, *Comus*, and *Lycidas*; Burke's *Speech on Conciliation with America*; Macaulay's *Essays on Milton and Addison*.

## LATIN.

The minimum requirements in Latin and Greek are in substantial agreement with those set forth in Document 8 of the College Entrance Examination Board, which carry out the recommendations of the Committee of Twelve of the American Philological Association :

*The Elementary Requirement* (counting two units).

- a. i. Latin Grammar : The inflections ; the simpler rules for composition and derivation of words ; syntax of cases and the verbs ; structure of sentences in general, with particular regard to relative and conditional sentences, indirect discourse, and the subjunctive ; so much prosody as relates to accent, versification in general, and dactylic hexameter.
- ii. Latin Prose Composition : Translation into Latin of detached sentences and easy continuous prose based upon Cæsar.
- b. Cæsar : Any four books of the Gallic War, preferably the first four, or their equivalent.

*The Advanced Requirement\** (counting two units).

- a. Cicero : Any six orations from the following list, but preferably the first six mentioned :  
The four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the Fourteenth Philippic.
- b. Vergil : The first six books of the *Æneid*.
- c. Advanced Prose Composition, consisting of continuous prose of moderate difficulty based on Cicero.
- d. Sight Translation, based on prose of no greater difficulty than the easier portions of Cicero's orations.

## GREEK.

*The Elementary Requirement* (counting two units).

- a. i. Greek Grammar : The topics for the examination in Greek grammar are similar to those detailed under Latin grammar.

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\* This may be divided into *a*, Intermediate ; *b*, Advanced, requirements at the convenience of candidates, each counting one unit.



- ii. Greek Prose Composition, consisting principally of detached sentences to test the candidate's knowledge of grammatical constructions.

The examination in grammar and prose composition will be based on the first two books of Xenophon's *Anabasis*.

- b. Xenophon: The first four books of the *Anabasis*.

*The Advanced Requirement* (counting one unit).

- a. Homer: The first three books of the *Iliad* (omitting II, 494, to end).
- b. Sight Translation, based on prose of no greater difficulty than Xenophon's *Anabasis*.

#### FRENCH.

*Elementary* (counting two units). Candidates in Elementary French must have a good knowledge of the essential parts of grammar, with stress on pronouns and on regular verbs and the common irregular verbs. They must know the principles of pronunciation; must be able to translate simple English sentences or easy connected prose into French, and to translate accurately ordinary modern French prose. Candidates must have translated not less than 450 duodecimo pages by at least four different authors, of which amount at least one-third must be history. Candidates must have had a two-years' course of at least four periods per week.

*Intermediate* (counting one unit). Candidates in Intermediate French must have, in addition, a good knowledge of the remaining grammatical forms and of syntactical difficulties. They must be able to translate ordinary connected English prose into French, and to translate accurately and idiomatically difficult modern French. Candidates must have partly translated, partly read, in addition to the requirements for Elementary French, at least 500 pages of several different authors, including history, fiction, drama, and some poetry. Candidates must have had a three-years' course of at least four periods per week.

*Advanced* (counting one unit). Candidates in Advanced French must have partly translated, partly read, in addition to the requirements for Intermediate French, at least 600 pages of difficult French of several different authors, including his-

tory, fiction, drama, and poetry. Candidates must have had a four-years' course of at least four periods per week.

Fraser and Squair's French Grammar or Grandgent's Essentials of French Grammar is recommended.

#### SPANISH.

(Counting two units.)

Candidates in Spanish must have a good knowledge of grammar, including syntax, with stress on pronouns and verbs, regular and irregular. They must know the principles of pronunciation. They must be able to translate simple English sentences or easy connected prose into Spanish, and to translate accurately fairly difficult modern Spanish prose and verse. Candidates must have translated not less than 500 pages by at least four different authors, of which amount at least one-fourth must be history or drama. Candidates must have had a two-years' course of at least four periods per week.

#### GERMAN.

*Elementary* (counting two units). Candidates in Elementary German must have had a two-years' course of at least four periods a week. They must be able to read fluently at sight and to translate easy narrative prose and poetry. An accurate knowledge of an elementary German grammar is requisite, to be tested by the translation into German of some fifteen sentences. About 300 pages of graduated narrative prose, one short play, and such poetry as is usually found in a First Reader will be considered an adequate preparation.

*Intermediate* (counting one unit). Candidates in Intermediate German must have had a three-years' course or its equivalent of four periods a week. Translation at sight from modern German prose. Requirements: Three prose books, preferably such as are given in the Report of the Committee of Twelve of the Modern Language Association; one classical drama, preferably *Wilhelm Tell*; and *Das Lied von der Glocke*; 50 pages of lyric and ballads. German composition and an easy essay in German.

*Advanced* (counting one unit). Candidates in Advanced German must have had a four-years' course of at least four periods a week. They should be well trained in the syntactical laws of the language, have read about 500 pages of good literature in prose and poetry, especially dramas by Lessing,



Schiller, and Goethe, and studied an elementary history of German literature. German composition should comprise a number of short themes upon assigned historical or literary topics, lives of the authors read, etc.

## HISTORY.

*Ancient* (counting one unit) :

- (a) Greek History, through the Roman Conquest ; as much as is contained in Myers' History of Greece.
- (b) Roman History ; as much as is contained in Allen's History of the Roman People.

*Mediæval and Modern European History* (counting one unit). As much as is contained in Myers' History of Mediæval and Modern Europe.

*English History* (counting one unit). As much as is contained in Larned's History of England.

*American History* (counting one unit). As much as is contained in Fiske's History of the United States.

## MATHEMATICS.

*Elementary Algebra* (counting one unit).

## i. Algebra to Quadratics :

The four fundamental operations for rational algebraic expressions, factoring, highest common factor, lowest common multiple, complex fractions, the solution of equations of the first degree containing one or more unknown quantities, radicals, including the extraction of the square root of polynomials and numbers, and fractional and negative exponents.

## ii. Quadratics, etc. :

Quadratic equations and equations containing one or more unknown quantities that can be solved by the methods of quadratic equations, problems depending upon such equations, ratio and proportion, and the binomial theorem for positive integral exponents.

*Advanced Algebra* (counting one unit).

## i. Progressions, etc. :

The progressions, the elementary treatment of permutations and combinations, and the use of four and five place tables of logarithms.

## ii. Series, etc. :

Undetermined coefficients, the elementary treatment of infinite series, the binomial theorem for fractional and negative exponents, and the theory of logarithms.

## iii. Theory of Equations :

Determinants and the elements of the theory of equations, including Horner's method for solving numerical equations.

*Plane Geometry* (counting one unit).

The solution of simple original exercises and numerical problems.

*Solid Geometry* (counting one-half unit).

Properties of straight lines and planes, of dihedral and polyhedral angles, of projections, of polyhedrons, including prisms, pyramids, and the regular solids; of cylinders, cones, and spheres; of spherical triangles and the measurement of surfaces and solids.

*Plane Trigonometry* (counting one-half unit).

The definitions and relations of the six trigonometrical functions as ratios, proof of important formulæ, theory of logarithms and use of tables, solution of right and oblique plane triangles.

## PHYSICS.

(Counting one unit.)

It is recommended that the candidate's preparation should include :

- a. Individual laboratory work, comprising at least thirty-five exercises well distributed over the subjects of physics.
- b. Instruction by lecture-table demonstrations.
- c. The study of at least one standard text-book, supplemented by the use of many and varied numerical problems. The metric system should be familiar to the student.

The laboratory note book must be submitted for inspection, whether the candidate is admitted on certificate or by examination.



## CHEMISTRY.

(Counting one unit.)

The candidate's preparation in chemistry should include—

*a.* Individual laboratory work, comprising at least forty experiments of a character analogous to those set forth in Document No. 8 of the College Entrance Examination Board.

On application for admission to this University, every candidate seeking credit in chemistry must present a note book in which he has recorded the steps and the results of his laboratory exercises. This note book must contain an index to its contents, and must bear an endorsement of the teacher who directed the student, written in ink on the inside of the cover, in the following form:

I certify that this note book is the true and original record of experiments actually performed by ——— in the chemical laboratory of ——— school during the year 19—.

(Signed) \_\_\_\_\_,

Title ——— [*Instructor*] in Chemistry.

*b.* Instruction by lecture-table demonstrations to be used in instructing students as to methods of manipulation and as a basis for questioning him upon the general principles involved in his laboratory experiments.

*c.* The study of at least one modern text-book, to the end that the student may gain a comprehensive and connected view of the most important facts and laws of elementary chemistry.

*Requirements.* The ground to be covered should include the following: The chief physical and chemical characteristics, the isolation and the recognition of the following elements and the preparation and study of their principal compounds: *Oxygen, hydrogen, carbon, nitrogen, chlorine, bromine, iodine, fluorine, sulphur, phosphorus, silicon, potassium, sodium, calcium, magnesium, zinc, copper, mercury, silver, aluminum, lead, tin, iron, manganese, chromium.*

The more detailed study should be confined to the italicized *elements* (as such) and to a restricted list of compounds, such as water, hydrochloric acid, carbon monoxide, carbon dioxide, oxides of nitrogen, nitric acid, ammonia, sulphur dioxide, sulphuric acid, hydrogen sulphide, sodium hydroxide, ammonium hydroxide.

Attention should be given to the atmosphere (constitution

and relation to animal and vegetable life), flames, acids, bases, salts, oxidation and reduction, crystallization, combining proportions by weight and volume, calculations founded on these and on Boyle's and Charles's laws, symbols, formulas, equations and nomenclature, atomic theory, atomic weights, valency (in a very elementary way), nascent state, natural groupings of the elements, solution (solvents and solubility of gases, liquids, and solids), ionization, mass action and equilibrium, strength of acids and bases, conservation and dissipation of energy, chemical energy, electrolysis. Chemical terms should be clearly understood, and the student should be able to illustrate and apply the ideas that they embody. The theoretical topics are not intended to form separate subjects of study, but to be taught only so far as is necessary for the correlation and explanation of the experimental facts. The facts should be given as examples from various classes and not as isolated things.

## BOTANY.

(Counting one unit.)

Candidates must have had at least one full year's work in Botany, comprising the General Principles of Morphology, Physiology, and Ecology, as well as in the Natural History of Plant Groups and Classification. Bergen's Foundations of Botany and Atkinson's Elementary Botany indicate the general scope of the work required.

## ZOÖLOGY.

(Counting one unit.)

In general, zoölogy is not recommended as an entrance subject unless the study has been preceded or accompanied by that of physics and chemistry, which form the most desirable groundwork for collegiate courses in biology. The entrance examination in zoölogy is designed to test, first, the candidate's practical acquaintance with the natural history, structure, and relationships of some of the leading types of animals, and, second, his knowledge of the more essential facts of physiology.

*Practical Zoölogy.* A practical examination of at least ten common animal types, and the presentation by the candidate of a laboratory note book, certified by the teacher, as evidence of a laboratory course actually performed. Examples of the types suggested are the frog, fish, mollusk, insects, crustaceans, annelid, starfish, hydroid (hydra), and protozoan. In



the examination less weight is laid on a knowledge of anatomical *minutiae* than on the ability to recognize the specimen and its allies, to indicate its relationship, and to point out the leading features of its life history, organization, and physiology.

*Elementary Physiology.* The nature of foods and their history in the body; the essential facts of digestion, absorption, circulation, secretion, excretion, and respiration; the motor, nervous, and sensory functions, and the structure of the various organs by which these operations are performed. Martin's *Human Body* (briefer course) forms a suitable basis for this work, but teachers are recommended as far as possible to correlate the physiology of man and the higher animals with that of the lower forms studied in the course of practical zoölogy.

#### PHYSIOGRAPHY.

(Counting one unit.)

The equivalent of Davis's Physical Geography, together with an approved laboratory and field course of at least forty exercises actually performed by the candidate.

The candidate will be required to present at the time of his examination the original note book in which he recorded, with dates, the steps and results of his laboratory exercises. This book, which should contain an index of subjects, must bear the endorsement of the teacher, certifying that it is a true record of the candidate's work.

#### DRAWING.

(Counting one unit.)

The candidate's preparation in drawing should include simple geometrical, plane, and solid figures and simple pieces of machinery, with a fair knowledge of the rules of perspective and light and shade as applied in free-hand sketching. The candidate should be able to reproduce from a flat copy with enlargement or reduction of size.

For courses in architecture, the preparation should include, in addition to the above, the drawing of simple pieces of architectural ornament (a Greek anthemium, a design of iron scroll-work, etc.).

For courses in engineering, the preparation should include the copying of machinery details.

For courses in general science or in science for teachers, the preparation should include the copying of still life and simple plant forms.

## ADMISSION TO ADVANCED STANDING.

Candidates for admission to advanced classes in any department are examined in all indispensable preliminary studies.

Due credit is given for properly certified courses of study pursued elsewhere.

## ADMISSION TO SPECIAL COURSES.

All the courses of instruction are open to students of suitable age and attainments who wish, without reference to any degree, to pursue special studies. Candidates are examined in each special study. They must be familiar with the subjects preliminary to the studies which they wish to pursue.

## AUDITORS.

Certain courses are open to the public on payment of an auditor's fee. No auditor will be admitted to a course without the consent of the President's Council previously obtained. Auditor's tickets must be procured of the Registrar and must be shown to the instructor in charge of the course for which they are issued. Auditors are without responsibility for class exercises or examinations, and they will receive no credit on the Secretary's records.

## ADMISSION TO COURSES FOR HIGHER DEGREES.

The higher degrees conferred by the University are Master of Arts (A. M.), Master of Science (M. S.), Civil Engineer (C. E.), Electrical Engineer (E. E.), Mechanical Engineer (M. E.), and Doctor of Philosophy (Ph. D.).

## DEFINITION OF REQUIREMENTS.

Admission to candidacy for a higher degree will be granted—

1. To holders of the degree of Bachelor of Arts or Bachelor of Science of The Columbian University.
2. To those who hold either of these two degrees from other institutions of good standing or the equivalent of either of these degrees.

Graduates of other institutions desiring to enter The Columbian University for a higher degree must in every case present



their diplomas or certificates that they have received such diplomas, together with catalogues of the institutions from which they hold their degrees and certificates of their courses of study at such institutions. All such applications should be accompanied by testimonials as to character and scholarship.

#### PROCEDURE FOR ADMISSION.

Candidates for admission to courses for higher degrees must present the diplomas they hold, or certificates that they have received such diplomas, to the Corresponding Secretary of the University, and obtain from him application blanks. When properly filled and signed, these applications are to be returned to the Secretary, together with a catalogue of the institution from which the candidate received his diplomas, to be submitted to the President's Council for investigation; the applicant will thereupon be informed in writing of the action of the Council. When the applicant is informed that the Council has approved his proposed course of study and has admitted him to candidature for a degree, he should present himself at once to the Registrar and matriculate. He should then present his receipt card and matriculation paper to the Secretary for his signature, and also obtain the signatures upon his matriculation paper of each of the professors with whom he is to study during the year. When this paper has been thus executed the student must sign it and return it to the Registrar.

#### UNIVERSITY SUBJECTS.

University subjects are divided into three sections, in accordance with the following requirement of an ordinance adopted by the Board of Trustees October 13, 1902:

ARTICLE IV. SECTION I. Subjects shall be divided into three sections, as follows:

(1.) The fundamental section, covering two years' work; this section to be assigned to students in the general culture courses.

(2.) The advanced section, not exceeding three years; this section to be assigned to students specializing for literary, scientific, professional, or industrial pursuits.

(3.) The original research section; this section to be assigned to students pursuing a subject for discovery and broader culture.

The courses in the first section are sometimes recommended to graduate students, but are not ordinarily counted toward the master's degree.

The courses in the second section may be taken by students in the second year of their course only by special permission of the professor in charge.

The courses in the third section are open to undergraduates only on the recommendation of the instructors, and no undergraduate student shall take in one year more than one course in the third section.

When an announced course has not been applied for by at least three students, candidates for a degree, the instructor shall be at liberty to withdraw the course.

First-section courses are numbered from 1 to 19, inclusive; second-section courses from 20 to 39, inclusive; third-section courses are numbered on from 40. The number of hours, unless otherwise specified, indicates hours per week throughout the year. The unit of credit is one hour of recitation or lecture work per week for one academic year; laboratory hours count one-half unit each. Sixty hours of credit is the minimum requirement for the bachelor's degree.

Libraries, laboratories, and drawing-rooms will be open from 9.30 a. m. till 10 p. m., with competent assistants in charge to direct students.

No student is admitted to a course unless he fulfills all of the requirements for that course, or otherwise satisfies the instructor that he is prepared to pursue it.

Every student must make his election of courses so as to avoid conflict between the hours appointed for recitations.

### APPLIED MATHEMATICS.

FAIRFAX BAYARD, C. E., Instructor in Applied Mathematics.

#### *Second Section. For Undergraduates and Graduates.*

20. Analytical and Applied Mechanics. Monday, Wednesday, and Friday, at 4.30.
21. Hydraulics. Friday, at 5.30.
22. Strength of Materials and Theory of Elasticity. Wednesday and Saturday, at 5.30.



## ARCHÆOLOGY, CLASSICAL.

MITCHELL CARROLL, A. M., Ph. D., Head Professor of Classical Philology.

*Second Section. For Undergraduates and Graduates.*

For a proper appreciation of the languages, literatures, and history of Greece and Rome, some knowledge of ancient life and art is essential. To meet this need, the following cycle of courses in Classical Archæology, extending over a period of three years, is offered. Each course consists of weekly lectures, illustrated by maps, plans, photographs, and lantern slides, supplemented by a prescribed course of reading and the preparation of papers on special topics. The work constitutes a two-hour elective for advanced undergraduate and graduate students, but the lectures are open to all students of the University. A knowledge of Greek or Latin is not essential.

20. Athens and Rome. A study of the history, topography, and monuments of the chief centers of ancient life. Given in 1903-04. Tuesday and Thursday, at 4.30.

21. Private Life of the Greeks and Romans. A study of the ancient house, its architecture, furniture, and ornamentation; family life; education and amusements; dress, arms, and armor; religious festivals, rites, and ceremonies, and other aspects of Greek and Roman life. Given in 1905-06. Two hours.

22. Introduction to Classical Archæology. An elementary course in Greek and Roman architecture and sculpture and other branches of archæology. Given in 1904-05. Two hours.

In all these courses considerable use will be made of the illustrative material accessible in the Corcoran Gallery of Art, the Smithsonian Institution, and the Halls of the Ancients.

## ARCHITECTURE.

PERCY ASH, B. S., C. E., Professor of Architecture.

JOSEPH C. HORNBLOWER, Lecturer on Architectural History.

LOUIS A. SIMON, Instructor in Architecture.

*First Section. Primarily for Undergraduates.*

1. Freehand Drawing. Wednesday, at 5.30.

2. Architectural Drawing (the five orders). Saturday, at 5.30.

3. Advanced Freehand Drawing. Two periods, Senior year.
4. Architectural Drawing. A review of the orders, with details to a large scale; measured drawings of existing buildings; copies and enlargements of plans and working drawings. Two periods, Freshman year. First term.
5. Architectural Design. Elementary composition; six problems or the equivalent. Two periods, Freshman year.
6. Building Construction. One hour.

*Second Section. For Undergraduates and Graduates.*

20. Pen-and-ink Rendering. One hour, Junior year.
21. Water-color Sketching. One hour, Senior year.
22. Shades, Shadows, and Perspective. One hour, Junior year.
23. History of Architecture. Egyptian, Assyrian, Grecian, and Roman. One hour, Junior year.
24. History of Architecture. Romanesque, Gothic, and Renaissance. One hour, Senior year.
25. Architectural Design. Six problems or the equivalent. Two hours, Junior year.
26. Architectural Design. Six problems or the equivalent. Five hours, first term, Senior year.
27. Thesis. An original design; a discussion of an architectural problem. Second term, Senior year.
28. Sanitary Science. One hour, first term, Senior year.
29. Building Materials and Construction. Two hours, Junior year.
30. Specifications. One hour, second term, Senior year.
31. Inspection of buildings erected or in course of erection. Junior and Senior years.

The hours for these courses will be announced at the opening of the session, and will be between 4.30 and 6.30. The assigned problems in design will require from the student not less than twelve hours a week.

A special course is arranged to suit the requirements of architectural or student draftsmen who may desire to supplement the practical experience of office work with special training in design, rendering, and other technical subjects. It is also open



to others whose previous education is such that they can, in the opinion of the professor in charge, pursue the course to advantage. No entrance examinations will be required, but a certain degree of proficiency in drawing and the rudiments of architecture is expected. Special students may enter at any time and pursue any class of work for which they are fitted.

The courses for special students are usually the following :  
Design. Two hours.

Shades, Shadows, and Perspective. One hour.

Water-color or Pen-and-ink Rendering. One hour.

Construction. One hour.

History of Architecture. One hour.

Additional time in the drafting-room is necessary in order to complete the assigned problems in design.

#### ASTRONOMY.

EDGAR FRISBY, A. M., Professor of Astronomy.

HERBERT LOUIS RICE, M. S., Professor of Astronomy.

FRANK E. MILLIS, Ph. D., Instructor in Astronomy.

##### *First Section. Primarily for Undergraduates.*

1. General Descriptive Astronomy. Young's General Astronomy, with occasional lectures illustrated with the stereopticon. The student is taught the use of star charts in locating the constellations. When circumstances permit, students will observe telescopic objects of interest, and also make some of the fundamental observations of practical astronomy, which will be used in the solution of problems. Monday and Thursday, at 5.30.

##### *Second Section. For Undergraduates and Graduates.*

20. Mathematical and Theoretical Astronomy. Theory taught mainly by lectures, supplemented by the solution of problems and practical computations. The course includes the discussion and application of various formulæ for interpolation and tabular differentiation and the practical precepts for correcting errors by means of differences; considerations respecting the elliptic form of the earth's meridian, and the derivation of formulæ for computing the "latitude reduction" and  $\log \rho$ ; transformations of the various coördinate systems employed in spherical astronomy; the construction and use of the American Ephemeris, or Nautical Almanac, including

computations of the principal quantities contained in that fundamental work ; a discussion of the laws of planetary (elliptic) motion, and the application of Lagrange's Theorem to the solution of Kepler's problem and similar questions ; the definition of the elements of an orbit, and their use in fixing the position of a planet in space ; the reduction of heliocentric coördinates to geocentric, including the corrections for nutation and aberration, etc., etc. This course is at once thorough and comprehensive, and is designed to meet fully the requirements of both the theoretical student and the practical computer. A thorough training in mathematics is presupposed. Four hours.

*Third Section. Primarily for Graduates.*

40. The Theory of Computing the Parabolic Orbit of a Comet from Three Observations, with an ephemeris. Encke's Memoir on Olbers' Method, Abhandlungen, Erster Band. Books of reference : Watson's Astronomy, Oppolzer's Bahnbestimmung der Cometen und Planeten.

41. The Theory of Computing an Elliptical Orbit, or any Conic Section, from Three or Four Observations. Gauss' Theoria Motus. Books of reference, as above.

42. An outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

43. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke : Abhandlungen, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variations of the six elements will be first taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

44. The Theory of General Perturbations. Tisserand, Mécanique Céleste. Books of reference : Laplace, Mécanique Céleste ; Lagrange, Mécanique Analytique. and Memoirs ; Leverrier, Annals of the Paris Observatory ; Hansen, Auseinandersetzung ; Pontécoulant, Système du Monde, etc.

45. General Spherical Astronomy. Chauvenet's or Brünnow's Spherical Astronomy.

50. On the construction and use of the American Ephemeris and Nautical Almanac. Embracing a complete discussion, both theoretical and practical, of all the important elements and data contained in this fundamental work. A practical course for computers.



51. Spherical and Mathematical Astronomy. A more general course than the preceding, covering the most important of the subjects discussed in Chauvenet's or Brünnow's works on Spherical and Practical Astronomy, and including such portions of Theoretical Astronomy (such as Watson's) as are not especially concerned with the determination of orbits.

52. On the Theory and Practice of Interpolation. A special course, including a full discussion of the properties of differences, the various formulæ and methods of interpolation, tabular differentiation, and mechanical quadrature; also other important problems concerned with the tabular values of functions, for those desiring special acquaintance with this fundamental and important subject.

53. A reading course in the History of Astronomy. Such works as Grant's History of Physical Astronomy, Clerke's History of Astronomy during the Nineteenth Century, etc., will be used as texts.

#### ASTRO-PHYSICS.

FRANK HAGAR BIGELOW, A. M., L. H. D., Professor of Astro-Physics.

##### *Third Section. Primarily for Graduates.*

40. Solar Magnetism. The constitution of the sun, the solar corona, the sun-spots and allied problems in solar physics, giving the grounds for the recent development of the theory that the sun is a polarized sphere surrounded by a magnetic field, which is the basis of these phenomena.

41. Cosmical Electricity and Magnetism. The two fields of force emanating from the sun, their mode of propagation through the ether, the theory of magnetic and electro-magnetic fields as applied to the theories of light, heat, and ether wave motions. Authors: Maxwell, Poincaré, Fleming, Watson, and Burbury, with references to the recent literature in scientific journals.

42. Terrestrial Magnetism. The distribution of the permanent magnetism of the earth, its disturbance by the solar fields, magnetic instruments, observatories and methods of observation, magnetic storms, the aurora, and atmospheric electricity, with a history of the progress of the science of each portion. Authors: Gauss, Lloyd, Walker, Stewart, and Gee, the reports of observatories and recent scientific papers.

43. Meteorology. The thermodynamic theory of the distribution of the atmosphere, the motions of the same, the periodic variations due to the solar fields, and the long-range predictions of the weather. A statement will be made of the latest progress in the development of this branch of physics, together with the allied questions of atmospheric absorption and transmission of energy, including important contributions of physical laboratories bearing on these subjects.

The results of the International Cloud Survey of the upper air; a comparative study of the theories of dynamic meteorology; Bigelow's standard system of equations useful in meteorology; the gradients of pressure, temperature, and vapor tension as determined by cloud computations, balloon and kite ascensions; these and related topics are included in this course.

#### BOTANY.

NOTE.—*Appointments of professors will be made and courses in Botany announced in a later bulletin. Application may be made for this special bulletin and it will be furnished as soon as it is issued.*

#### CHEMISTRY.

CHARLES E. MUNROE, Ph. D., Head Professor of Chemistry.

FRANK WIGGLESWORTH CLARKE, Sc. D., Professor of Mineral Chemistry.

HARVEY W. WILEY, Ph. D., M. D., Professor of Agricultural Chemistry.

\* THOMAS M. CHATARD, Ph. D., Lecturer on Chemical Engineering.

N. MONROE HOPKINS, Ph. D., Assistant Professor of Chemistry.

EDWIN A. HILL, Ph. D., Instructor in Chemistry.

##### *First Section. Primarily for Undergraduates.*

1. General Chemistry. A series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. Tuesday, Thursday, and Saturday, at 4.30.

2. Laboratory Practice. A laboratory course for the study of the principles of chemistry and the methods of conducting

\* Absent on leave.



chemical experiments. Two two-hour periods. Tuesday and Thursday, at 1.30.

3. Preparation and Study of the Properties of Chemical Substances. Two two-hour periods. Tuesday and Thursday, at 1.30.

4. Assaying and Metallurgy of the Precious Metals, carried on by the methods used by the Government assayers, the laboratory being fitted up on the plan of that of the United States Mint. Twelve hours, for three months.

5. Lectures on the Principles of Analysis. One hour.

6. Metallurgy of Iron and Steel. A course of lectures and readings. Tuesday, at 5.30.

*Second Section. For Undergraduates and Graduates.*

20. Qualitative Analysis. A laboratory course in the study of the properties and reactions of chemical substances, and of the means employed for their detection and identification. Four two-hour periods.

21. Quantitative Analysis. A laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Six two-hour periods.

22. Technical Analysis and Industrial Processes. A lecture and laboratory course in which the elements of chemical engineering are taught, and special attention is given to rapid commercial methods of analysis. Six two-hour periods.

23. Advanced course in Organic Chemistry. Wednesday and Friday, at 4.30.

24. Advanced course in Organic Chemistry. A continuation of Course 23. Thursday and Saturday, at 5.30.

25. Chemistry of the Carbon Compounds. A laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Six two-hour periods.

26. Electro-chemistry. This course treats of the modern theories of chemistry, to which is added the consideration of the more important technical applications of electricity to chemistry. Monday and Friday, at 5.30.

27. Stereo-chemistry. This course deals with the arrangements of atoms in space from a theoretical standpoint, while the student is taught how to form models by which to illustrate their arrangements. Monday, at 4.30; Wednesday, at 5.30.

*Third Section. Primarily for Graduates.*

- 40. Explosive Substances.
- 41. Analytical Methods.
- 42. The Phenomena of Deliquescence and Efflorescence.
- 43. Development of the Theory of the Constitution of the Natural Silicates.
- 44. The Redetermination of Atomic Weights.
- 45. Special Researches in Agricultural Chemistry.

CIVIL ENGINEERING.

HENRY A. PRESSEY, B. S., Professor of Civil Engineering.

BERNARD HERMAN, B. S., Instructor in Civil Engineering.

R. E. NELSON, JR., Instructor in Civil Engineering.

*First Section. Primarily for Undergraduates.*

- 1. Land and Topographical Surveying, with theory and use of instruments. Practical Exercises and Field-work, not less than sixty hours during the session. Tuesday and Saturday, at 5.30.
- 2. Railroad and Highway Engineering. Field-work as in course 1. Tuesday, at 4.30; Wednesday, at 5.30.
- 3. Sanitary Engineering (Water Supply and Sewerage). Tuesday and Thursday, at 4.30. Design. Two hours.
- 4. Materials of Construction. Wednesday and Friday, at 5.30. Exercises. One hour.

*Second Section. For Undergraduates and Graduates.*

- 20. Masonry Construction. Friday, at 5.30. Constructive Exercises. Two hours.
- 21. Hydraulic Engineering (Rivers, Water Power, and Irrigation). Saturday, at 4.30. Constructive Exercises. One hour.
- 22. Framed Structures. Monday, Wednesday, and Friday, at 4.30. Design. Two hours.



*Third Section. Primarily for Graduates.*

40. Water Supply. Details of water works. Study of surface and underground waters as sources of supply, with special reference to methods of purification.

41. Sewerage. Details of sewerage systems, with special reference to methods of sewage disposal.

42. Hydrology. Flow of rivers, rainfall, and the effects of topography, forests, etc., upon the run-off of watersheds.

43. Irrigation.

44. Advanced course in the graphic statics of building construction.

45. The theory of suspension, continuous, cantilever, and braced arched bridges, with a more complete course in the design of plate girders, riveted and pin-connected bridges, with working drawings and estimates.

46. Advanced course in construction. The theory and designing of retaining walls, masonry arches, and dams.

47. Thesis, the subject of which is to be selected by the student and approved by the Professor of Civil Engineering.

## CLASSICAL LANGUAGES.

MITCHELL CARROLL, A. M., Ph. D., Head Professor of Classical Philology.

CHARLES S. SMITH, A. M., Assistant Professor of Greek and Latin.

## GREEK.

*First Section. Primarily for Undergraduates.*

1. Lysias (selected orations); Herodotus (selections); Euripides (Alcestis, Medea). Private reading required. Monday, Wednesday, and Friday, at 2.30.

2. Greek Prose Composition. Review of forms and syntax. Reading at sight and translation at dictation. Tuesday, at 2.30.

3. Thucydides (Book VII); Æschylus (Persians); Demosthenes (Olynthiacs and Philippics); Sophocles (Antigone). Private reading. Monday, Wednesday, and Friday, at 11.30.

*Second Section. For Undergraduates and Graduates.*

20. Plato (Euthyphro, Apology, Crito); Aristophanes (Clouds); Xenophon (Memorabilia). Private reading. Tuesday and Thursday, at 9.30.

21. Greek Prose Composition (advanced course).—Practical oral exercises in syntax and translation. Original composition. Thursday, at 11.30.

22. Greek Literary Criticism. Aristotle (Art of Poetry); Longinus (on the Sublime). Tuesday and Thursday, at 1.30, second term.

24. Topography and Monuments of Ancient Athens. Tuesday and Thursday, at 4.30, first term.

## LATIN.

*First Section. Primarily for Undergraduates.*

1. Livy (Books I-XXI); Cicero (de Senectute); Horace (Odes); Cicero and Pliny (Selected Letters). Private reading required. Monday, Wednesday, and Thursday, at 3.30.

2. Latin Prose Composition. Review of forms and syntax. Reading at sight and translation at dictation. Friday, at 3.30.

3. Tacitus (Agricola, Germania, Dialogus de Oratoribus); Lucretius; Satires of Horace and Juvenal (Selections). Private reading. Monday, Wednesday, and Friday, at 3.30.

*Second Section. For Undergraduates and Graduates.*

20. Roman Literary Criticism. Quintilian (Book x) and Horace (Ars Poetica). Selected readings from other authors. Tuesday and Thursday, at 10.30. First term.

21. Catullus and the Elegiac Poets (Tibullus, Propertius, Ovid). Conferences on History of Roman Literature. Tuesday and Thursday, at 10.30. Second term.

22. Latin Composition and Reading at Sight. Practice in Latin expression and style. Original essays in Latin. One hour.

23. Plautus and Terence. Thursday, at 11.30.

24. Topography and Monuments of Ancient Rome. Tuesday and Thursday, at 4.30. Second term.



*Third Section. Primarily for Graduates.*

## THE SEMINARY OF CLASSICAL PHILOLOGY.

Professor CARROLL, Director.

The design of the Seminary of Classical Philology is to afford discipline in the methods of philological criticism and research with especial reference to the interpretation of classical authors. It is composed of all graduate students in Classical Languages, and is under the supervision of the Director, who is assisted by the other instructors of the department in certain features of the work. Each year two authors in related branches of Greek and Latin literature are made the center of study. Interpretations of the texts under consideration are prepared by the members, and papers are read by them from time to time, containing the results of special study of philological or literary topics. Furthermore, wide and systematic reading in the authors selected is carried on under personal supervision, and special lectures are given from time to time on the departments of literature involved. The authors selected for criticism and interpretation in 1903-04 are Aristophanes and Plautus. Two meetings of an hour and a half each will be held weekly at hours to be assigned later.

## THE CLASSICAL CLUB.

The Columbian Classical Club, which is composed of instructors and advanced students in Greek and Latin and classical archaeology, meets monthly for the more detailed discussion of special topics in ancient life, literature, and art than is ordinarily possible in the class-room. At each meeting a paper is read, reviews of recent classical publications are presented, and reports are made from the various sites of archaeological excavation. The general subject of study of 1902-03 was "Pompeii—its Life and Art." Teachers and patrons of the classics in Washington are admitted as associate members, and at open meetings the club avails itself, when possible, of the services of eminent scholars from other universities who may be temporarily in the city.

## ECONOMICS.

NOTE.—*Appointments of professors will be made and courses in Economics announced in a later bulletin. Application may be made for this special bulletin and it will be furnished as soon as it is issued.*

## ELECTRICAL ENGINEERING.

FRANK A. WOLFF, JR., Ph. D., Professor of Electrical Engineering.

PHILANDER BETTS, E. E., Instructor in Electrical Engineering.

*First Section. Primarily for Undergraduates.*

1. Elementary Mathematical Theory of Electricity and Magnetism. Text-book: S. P. Thompson's Elementary Lessons in Electricity and Magnetism. Tuesday, at 4.30; Wednesday and Saturday, at 5.30. First term.

2. Dynamo-electrical Machinery. Text-book: Hawkins and Wallis, The Dynamo. Tuesday, at 4.30; Wednesday and Saturday, at 5.30. Second term.

3. Electrical Measurements. A laboratory course for students in the Electrical Engineering Course. Text-book: Carhart and Patterson's Electrical Measurements. Three two-hour periods.

*Second Section. For Undergraduates and Graduates.*

20. Advanced Mathematical Theory of Electricity and Magnetism. Text-book: Gerard's Electricity and Magnetism (translated by Duncan). Tuesday, Thursday, and Saturday, at 4.30. First term.

21. Dynamo-electric Machinery. Advanced Course. Text-books: S. P. Thompson's Dynamo-electric Machinery and Polyphase Currents; Jackson's Alternating Currents. Tuesday, Thursday, and Saturday, at 4.30. Second term.

22. Technical Applications of Electricity. A course covering the most important applications of electricity: Telephony, Telegraphy, Lighting, Power Transmission, Electro-metallurgy, Electro-chemistry, etc. Monday and Friday, at 5.30.

23. Advanced Laboratory Work for students in the Electrical Engineering Course. Dynamo and motor-testing, determinations of characteristics, etc. Three two-hour periods.

24. Inspection of Electric Light and Power Plants, etc. In the vicinity of Washington and Baltimore are a number of modern electric-lighting and street-railway plants, telephone exchanges, telegraph operating-rooms, etc., which afford students of electrical engineering an excellent opportunity to familiarize themselves with nearly all types of electrical apparatus in use.



The visits are followed by a class discussion. Occasional meetings are held at which papers on special subjects are read by advanced students.

*Third Section. Primarily for Graduates.*

40. Technical Applications of Electricity. A course of special lectures on the most recent and most important applications of electricity to industrial and scientific use. Two hours.

41. Design of Direct and Alternating Current Machinery. Two hours.

42. Advanced Course in the Mathematical Theory of Alternating Currents. Three hours, first term.

43. Advanced Course in Polyphase Currents. Three hours, second term.

44. Advanced Laboratory Work, Alternating (including Polyphase) Current apparatus. Three two-hour periods.

ENGLISH.

WILLIAM ALLEN WILBUR, A. M., Head Professor of English.

*First Section. Primarily for Undergraduates.*

1. Rhetoric. This course presupposes a knowledge of the elements of rhetoric. The objects of the course are: an exposition of the principles of rhetoric; a verification of these principles by the analysis of selections from the best writers, with definite practical deductions to guide in criticism and composition; the application of these principles in paragraph and theme writing. Text-book: Genung's Working Principles of Rhetoric. Tuesday and Thursday, at 9.30.

2. Rhetoric. Identical with Course 1. Monday and Friday, at 4.30.

3. Prose. A critical study of representative prose works in a chronological order, ranging from Roger Ascham to Robert Louis Stevenson. The intent of the course is by inductive and comparative studies to show the development of a standard prose style and the main tendencies of change in the standard through three centuries. This course requires the careful study of about twenty books. It is open to students who have passed in Course 1 or 2. Monday, Wednesday, and Friday, at 10.30.

4. English Literature. A course of lectures tracing the historical development of the literature with the design of giving a general view of the literature of England and emphasizing its consistency in the persistence of a certain distinctive quality. Students taking this course are required to read Taine's History of English Literature. Wednesday, at 4.30.

5. American Literature. Lectures and class studies in biography and literature. Students taking this course are required to read widely in the literature. Wednesday, at 5.30.

*Second Section. For Undergraduates and Graduates.*

20. Composition. An advanced course in English Composition, with practice in various forms of discourse and studies in criticism. Essays are written weekly. These are exchanged and criticisms are written during the hour. Essays and criticisms are finally revised and returned. Wendell's English Composition is used as a handbook. The course is open to students who have passed in Course 1 or 2. Tuesday, at 1.30.

21. Old English. An elementary course; the essentials of the grammar and readings from Old English texts. Text-books: Cook's First Book in Old English; Cook's Exercises in Old English. Tuesday and Thursday, at 2.30.

23. Shakespeare. The Tragedies and Romances. Monday, Wednesday, and Friday, at 1.30.

24. Shakespeare. The English Historical Plays. Given in 1904-05. Three hours.

NOTE.—The Temple edition of Shakespeare is recommended.

27. The English Novel. Development of the Novel, with critical studies of selected works, including some contemporary fiction. Given in 1902-03. Three hours.

28. Tennyson. The poetry of Tennyson. Monday and Friday, at 5.30.

*Third Section. Primarily for Graduates.*

40. English Philology. One hour.

41. The English Drama. One hour.

42. Milton. One hour.



## GEOLOGY AND MINERALOGY.

GEORGE P. MERRILL, Ph. D., Professor of Geology and Mineralogy.

TIMOTHY W. STANTON, A. M., Ph. D., Instructor in Paleontology and Stratigraphical Geology.

MAYVILLE W. TWITCHELL, M. S., Instructor in Geology.

*First Section. Primarily for Undergraduates.*

1. Mineralogy. Crystallographic, descriptive, and determinative mineralogy. This course is designed with especial reference to minerals as rock constituents or segregated as ore deposits. It includes, therefore, a discussion of not merely the crystallographic and theoretical, but the practical side of the subject as well. Whenever possible, it should be considered as introductory to the courses in either systematic or economic geology. Tuesday and Thursday, at 5.30.

2. Geology. Systematic geology; dynamical, structural, and stratigraphical. The course is designed to form a part of a general culture course, or a preliminary course for those intending to make a specialty of geology. It includes lectures, recitations, laboratory and field work. Paleontology is treated as a branch of geology, having especial reference to stratigraphy and correlation. Text-books: Scott's Introduction to Geology; Merrill's Rocks, Rock Weathering and Soils. Monday and Friday, at 5.30.

*Second Section. For Undergraduates and Graduates.*

20. Economic Geology. The course consists largely of lectures upon the subjects comprised under: (1) Mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (2) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, antimony, etc.; and (3) the non-metallic minerals, as the coals and hydrocarbon compounds; salts and materials used in chemical manufactures; abrasive, refractory, and fictile materials, pigments, gems, ornamental stones, building stones, limes, cements, and mineral waters. Text-books: Kemp's Ore Deposits of the United States; Merrill's Stones for Building and Decoration, and the Non-metallic Minerals. Monday and Friday, at 4.30.

*Third Section. Primarily for Graduates.*

Advanced study in Geology, both systematic and applied, is arranged to cover two years.

40. Advanced Geology. The student in this first-year course may devote his time largely, if necessary, to perfecting himself in methods; to general work in the laboratory and in the field; to the examination of geological materials, and to familiarizing himself with the literature of the subject. The utility of the various text-books is recognized, but a very large portion of the desired knowledge on any subject must be gained from special memoirs and from the current literature as it appears in numerous periodicals. The various sources of information, the most essential lines of work, as well as the most promising fields of investigation, are from time to time indicated by the instructor.

41. Advanced Geology: A continuation of Course 40. The student is expected to devote himself to some special investigation which shall serve as the subject of his thesis. The course is modified to suit individual cases, in order that the student may be restricted as little as possible in the exercise of personal taste, originality, and capacity for work.

#### GERMAN.

HERMANN SCHOENFELD, Ph. D., LL. D., Head Professor of German.

CARL HAU, A. M., Instructor in German.

*First Section. Primarily for Undergraduates.*

Instruction in German has, as its primary object, a thorough knowledge of the grammar and familiarity with the general literature and history, with such practice in conversation as shall serve as a stimulus in the furtherance of this object. The principles of grammar are illustrated from the class readings and composition.

1. A preliminary course in grammar, narrative prose, the elements of historical reading, and select poems of the principal modern poets. Special stress is laid on exercises in composition. One classic (Schiller) is studied. The work done is equivalent to a two years' course in high schools or academies of good standing. Monday, Wednesday, and Friday, at 11.30.

2. Identical with Course 1. Tuesday, Thursday, and Saturday, at 4.30.

3. The deeper aspects of grammar; accurate training in phonetics and translation into German; conversation; read-



ings from the best German prosaists and poets; selected texts from Schiller, Lessing, Goethe, Freytag. Beginnings of German literature and history. Special preparation for scientific professional work. Open to students who have passed Course 1 or 2, or have fulfilled the entrance requirement in Elementary German. Tuesday, Thursday, and Saturday, at 5.30.

4. Advanced course in German syntax; principal difficulties of the language; idioms; synonyms; extensive translation of the best English prosaists into German; essays; selected advanced prose; classical reading and literature; German history. Special training for advanced students in the historic and economic departments. Open to students who have passed Course 3 or have fulfilled the entrance requirement in Advanced German. Monday, Wednesday, and Friday, at 1.30.

*Second Section. For Undergraduates and Graduates.*

20. German Literature in the first half of the nineteenth century; its social and political aspects; the Romanticists; essays, lectures, and collateral reading. Tuesday and Thursday, at 11.30.

21. Literary awakening in Germany in the time of Frederick the Great; critical study of the literary centers—Leipzig, Zürich, Göttingen, Berlin. The Storm and Stress Period and the youthful works of Schiller and Goethe; critical investigation of Klopstock's Odes; Messiah. Tuesday and Thursday, at 3.30.

The intervening periods of Modern German Literature will be studied during the subsequent academic year.

*Third Section. Primarily for Graduates.*

40. German Literature in the sixteenth century. Braune's Neudrucke Deutscher Literaturwerke. Humanism and Reformation, with special reference to Italian and French influences. Historical basis after Voigt, Janssen, Ranke, Burckhart, Geiger. One hour.

41. German Literature in the twelfth and thirteenth centuries, with special regard to the Nibelungen lay and the Gudrun saga. The lyrics of Walther von der Vogelweide. The grammatical aspects of the classics of the First Period of Bloom. Two hours.

The other phases of older German literature and philology will be studied in subsequent years, so that the general range

of the History of German Literature may be covered every three years.

45. The emerging of the Germanic, Romance, and Slavic races in European History. The Migration of Peoples. The Evolution of European States to the rise of the Hapsburg House. (Selections from the historical sources will be read and interpreted.)

46. The Holy Roman Empire from Rudolph of Hapsburg till the death of Maximilian I (1519), with special reference to *Kulturgeschichte*, and the first attempts at Church reform.

47. The Political Awakening in the Eighteenth Century. Causes of the French Revolution and origins of the Napoleonic Empire.

48. The Annihilation and Reconstruction of Prussia (H. von Treitschke, etc.). The Building up of the Modern German Empire (H. von Sybel, etc.).

#### GRAPHICS.

ERNEST L. THURSTON, C. E., Professor of Graphics.

EDWARD ADAMS MUIR, B. S., Assistant Professor of Graphics.

##### *First Section. Primarily for Undergraduates.*

1. Mechanical Drawing. A course designed to give a knowledge of the fundamental principles of mechanical drawing and to prepare for higher technical drawing. A study of geometrical and graphical constructions, including higher curves; elementary orthographic and isometric projections, sections, and intersections; dimensioning, lettering, and conventional symbols; first principles of working drawings and tracings. Monday and Friday, at 5.30, with supplementary exercises.

2. Machine Drawing. A general course in reading drawings and in drawing-room practice, including: A study of the names and arrangement of views and sections; conventional methods and the nomenclature of machine parts; practice in describing the machine and its operation from the drawing. One hour (special students, two hours).

3. Machine Drawing. A course designed especially for mechanical and electrical engineering students. Projections of intersections and development of surfaces; conventional forms, rules, etc.; the construction and reading of working drawings.



Two two-hour periods for one term. Friday and Saturday, at 5.30.

For advanced students additional work is offered during the second term, including the construction of working drawings and sketches from models; detailing from general drawings; tracing and blue printing; designing by means of graphic methods and empirical formulæ.

8. Descriptive Geometry. A study of the representation of lines, surfaces, and solids, and of their relations; tangencies, intersections, and developments; warped surfaces; shades and shadows; original construction problems. Tuesday and Thursday, at 5.30; supplementary exercises, two hours.

9. Lettering as applied to Mechanical, Topographic, and Architectural Drawing. Two hours.

10. Topographic Drawing. A general course, including: hypsographic expressions; topographic, cadastral, and public culture symbols; scales and plotting; projections, reductions, and enlargements; compilation, plain and in color. Two hours, with supplementary exercises.

11. Topographic Modeling, including the collection of data, the plotting of contours, and the construction of cardboard and plaster models. Two hours, with supplementary exercises.

*Second Section. For Undergraduates and Graduates.*

20. Graphic Statics. Principles and methods, including the construction and use of load, stress, and moment diagrams; dead, live, snow, and wind loads; the graphic analysis of simple beams, girders, roof trusses, and bridge trusses; simple designing. Thursday and Saturday, at 4.30; supplementary exercises, two hours.

21. Mechanics of Machinery; the graphical statics of mechanism. Wednesday and Saturday, at 5.30.

25. Statistical Drawing. The reduction of statistics and tables to maps, charts, diagrams, and technical drawings. One hour, with supplementary exercises.

*Third Section. Primarily for Graduates.*

40. Geometry of Position. A study of the subject as developed by projective methods based on the works of von Staudt, Steiner, etc.

41. Graphic Statics. This science may be studied :

(1) As a part of Applied Mechanics, based on the works of Culmann, Ritter, Koechlin, Chambers, etc.

(2) As a part of Analytic Mechanics, based on geometry of position.

42. Systems of Projection. A comparative study of the theories and principles of known systems, with their applications to technical drawing and map projection.

45. The History and Development of Technical Drawing from earliest times. Class and research work.

#### HISTORY AND POLITICAL SCIENCE.

CHARLES CLINTON SWISHER, Ph. D., Head Professor of History and Professor of Political Science.

L. RUSSELL ALDEN, A. B., Assistant in History.

##### HISTORY.

###### *First Section. Primarily for Undergraduates.*

1. Mediæval History. A general survey of the more important phases of the history of Europe from the Teutonic invasion to the Fall of Constantinople. Text-book, lectures, and collateral reading. Tuesday and Thursday, at 10.30.

2. Modern European History. A history of the European states under the new conditions brought into action by the Protestant Revolution, the invention of printing, and the discovery of America, through the period of the French Revolution. Text-book, lectures, and reports. Tuesday and Thursday, at 11.30.

###### *Second Section. For Undergraduates and Graduates.*

20. European History since the close of the French Revolution. An introductory study to contemporaneous politics. Lectures, examinations, and collateral reading. Open to students who have taken Courses 1 and 2. Wednesday and Friday, at 2.30.

21. English History. With special reference to economic and social changes and later commercial expansion. Text-books, reports, and collateral readings. Open to students who have taken Courses 1 and 2. Tuesday and Thursday, at 3.30



22. American History. Social and economical conditions of the English colonists in America leading to political differentiation and subsequent revolution. The acquisition of new territory, and national development under the Constitution. Text-book, reports, and collateral reading. Open to students who have taken Course 21. Wednesday and Friday, at 3.30.

23. English Constitutional History. Parliamentary usages developed under the Normans and early Plantagenets; in abeyance under the Tudors; triumphant under the later Stuarts. The rise of party government under the Whig oligarchy of the Revolution until triumph of the democracy in the reforms of the nineteenth century. Lectures, discussion, and collateral reading. Open to students who have completed Courses 21 and 22. Tuesday and Thursday, at 2.30. First term.

24. American Constitutional History. Constitutional development traced through colonial charters and "Articles of Confederation" until formulated in the Constitution of 1789. Interpretation of the Constitution, under the pressure of party issues, through the period of division and reconstruction. Lectures, discussion, and collateral reading. Open to those who have completed Courses 21, 22, and 23. Tuesday and Thursday, at 2.30. Second term.

25. History of the British Empire. Evolution of the imperial idea; colonial expansion of England; England in Asia, America, Australasia, and Africa; the problem of imperial federation. Lectures and collateral reading, open to students who have completed Course 21. Monday, at 9.30.

#### POLITICAL SCIENCE.

##### *Second Section. For Undergraduates and Graduates.*

20. The Historical Basis of Political Institutions. The genesis, development, and differentiation of political institutions under the influence of local environment, with, special study of Athenian democracy, Roman imperialism, and the blending of Roman and Teutonic institutions in the Feudal system. Lectures, conferences, and examinations. Open to students who have completed Courses 2 and 20 in History. Tuesday at 5.30.

21. The Evolution of the Modern States. The progress of Centralization and the development of National Consciousness; Revolution and Subsequent reconstruction, with a study of the resulting political institutions, especially in England, Germany, France, Switzerland, and the United States. Open to students

who have completed Courses 2, 20, 21, and 22 in History. Thursday, at 5.30.

22. An Analytical Study of the Functions and Structure of Political Institutions. Topical reading and discussion by the Class. Tuesday, at 4.30.

23. A study of the Practical Working of the United States Government; its administrative efficiency compared with that of the governments of England and the Continental States. Topical reading and discussion by the class. Thursday, at 4.30.

#### HISTORY AND POLITICAL SCIENCE.

##### *Third Section. Primarily for Graduates.*

Graduate Seminars in History and Political Science will be held weekly for the arrangement of special courses, and the direction and prosecution of individual research.

#### LIBRARIES AND ARCHIVES.

NOTE.—*Appointments of professors will be made and courses in Libraries and Archives announced in a later bulletin. Application may be made for this special bulletin, and it will be furnished as soon as it is issued.*

#### MATHEMATICS.

JAMES HOWARD GORE, Ph. D., Head Professor of Mathematics.

HOWARD LINCOLN HODGKINS, Ph. D., Professor of Mathematics.

FRANK GUSTAVE RADELFINGER, B. S., Assistant Professor of Mathematics.

##### *First Section. Primarily for Undergraduates.*

1. Solid Geometry; Gore's Plane and Solid Geometry. Monday, Wednesday, and Friday, at 9.30, for two months.

2. Geometry; Gore's Plane and Solid Geometry. Tuesday and Thursday, at 5.30.

3. Algebra; Bowser's College Algebra. Monday, Wednesday, and Friday, at 9.30, for four months.

4. Algebra; Bowser's College Algebra. Tuesday, Thursday, and Saturday, at 4.30.



5. Plane Trigonometry; Crockett's Plane and Spherical Trigonometry. Monday, Wednesday, and Friday, at 9.30, for two months.

6. Trigonometry; Crockett's Plane and Spherical Trigonometry. Monday, Wednesday, and Friday, at 5.30, for four months.

7. Spherical Trigonometry; Crockett's Plane and Spherical Trigonometry. Monday, Wednesday, and Friday, at 11.30, for two months.

8. Analytic Geometry; Bowser's Analytic Geometry. Monday, Wednesday, and Friday, at 5.30, for four months.

9. Analytic Geometry; Nichol's Analytic Geometry. Monday, Wednesday, and Friday, at 11.30, for four months.

10. Theory of Equations; Barton's Theory of Equations. Monday, Wednesday, and Friday, at 11.30, for two months.

NOTE.—Courses 2 and 4 are intended for students who desire to review some parts of elementary algebra and plane geometry, in order to obtain that thorough and ready knowledge of these fundamental mathematical studies that is necessary for their proper use in other subjects. These classes are not intended for beginners, and only students who have studied elementary algebra and plane geometry will be admitted.

Courses 1, 3, and 5 are designed to occupy one year; likewise Courses 2 and 4.

Engineering students whose time will permit are advised to complete during their first year Courses 1, 3, 5, 6, and 8.

*Second Section. For Undergraduates and Graduates.*

21. Differential and Integral Calculus; Taylor. Monday, Wednesday, and Friday, at 4.30, for six months.

23. Differential Equations; Osborne. Monday, Wednesday, and Friday at 4.30, for two months.

24. Differential Equations. Johnson's Differential Equations. Two hours.

In all of the above courses the text is supplemented by lectures and the principles emphasized by proposing for solution a large number of problems taken from the best European and American authorities.

While the disciplinary value of the study of mathematics is never lost sight of, the importance of its practical application is insisted upon.

*Third Section. Primarily for Graduates.*

41. Theory of the Complex Variable. Lectures with reference to Durege and Forsyth. Three hours for four months.
43. Functions. Lectures with reference to Harkness and Morley, Briot and Legendre. Three hours for four months.
44. Functions arising from the solution of differential equations. Two hours.

## MECHANICAL ENGINEERING.

EDWARD ADAMS MUIR, B. S., Assistant Professor of Graphics.

PHILANDER BETTS, E. E., Instructor in Electrical Engineering.

LOUIS E. GILES, B. S., Instructor in Mechanical Engineering.

*First Section. Primarily for Undergraduates.*

1. Machine Design. Proportioning of the following machine parts: Fastenings, toothed and belt gearing, rotating and sliding pieces, bearings, and connecting rods. Two two-hour periods, Thursday and Saturday, at 4.30.
2. Kinematics. Nature of mechanisms. Diagrams of the changes of position and speed in mechanisms. Monday and Wednesday, at 5.30.
3. Boilers. Location, construction, strength, and wear and tear of boilers. Monday and Wednesday, at 5.30, second term.

*Second Section. For Undergraduates and Graduates.*

20. Thermodynamics. The steam-engine and other heat engines. Not given in 1903-'04.
21. Mechanical Technology. Shop visits. Examination of processes and appliances pertaining to pattern-making, molding, casting, forging, and finishing. Two two-hour periods.
22. The Mechanical Engineering of Power Plants. Monday and Thursday, at 4.30.
23. Machine Design. Theory of and calculations for a high-speed steam-engine. Four hours. Not given in 1903-'04.
24. Mechanics of the Machinery of Transmission. Four hours. Not given in 1903-'04.



25. Measurement of Power. Practical work in indicating steam-engines, determining the evaporative efficiency of boilers. &c. Three periods.

*Third Section. Primarily for Graduates.*

The course of study leading to the degree of Mechanical Engineer includes the following subjects: Steam-engine, Zeuner's diagrams, gas engine, and mechanics of machinery. In addition, the students are required to do individual work in taking indicator diagrams and making engine and boiler tests. The following works indicate the range of subjects:

Riggs' Steam-engine; Zeuner's Diagrams; Clerk's Gas Engine. Weisbach-Hermann's Mechanics of Machinery: Hoisting machinery, accumulators, cranes, locomotives, etc. Day's Indicator Diagrams and Engine and Boiler Testing. Weisbach-Hermann's Mechanics of Machinery: Pumps, pumping engines, blowing engines, compressors, and fans.

METEOROLOGY.

CLEVELAND ABBE, A. M., LL. D., Professor of Meteorology.

*First Section. Primarily for Undergraduates.*

1. Observational Meteorology. The student will keep a personal diary of the meteorological conditions. The lectures will relate to instruments and methods of observing, computing, and graphic presentation of results. Tuesday and Thursday, at 5.30.

*Second Section. For Undergraduates and Graduates.*

20. General Climatology. The lectures will cover all the elements of climate and some of the physical processes explaining the phenomena, the theory of probabilities so far as it is applied to climatology, and the determination of the coefficients or other factors that represent climatological peculiarities. Tuesday and Thursday, at 4.30.

21. Special subjects in climatology and meteorology and the relation of climate to geology, vegetation, anthropology, hygiene, and human industries. Two hours.

*Third Section. Primarily for Graduates.*

40. Experimental and Laboratory Work in Meteorology. The lectures will treat of the theories of instruments; the laws

of meteorological phenomena, so far as they are susceptible of laboratory experiment ; the differences in methods of reduction and publication.

41. Practical Meteorology. The lectures will treat of cartography, daily weather charts, methods of predicting the weather for a few days, long-range predictions for seasons, methods of verification, and the climates of past geological ages.

42. Physical and Theoretical Meteorology. The lectures will sketch the present state of our knowledge of atmospheric phenomena as a problem in thermodynamics and hydrodynamics. An extensive course of reading and private study will be marked out for the pupil, and his thesis for the degree of Ph. D. must be in the field of physical meteorology.

#### PHILOSOPHY.

JAMES MACBRIDE STERRETT, A. M., D. D., Head Professor of Philosophy.

WILLIAM T. HARRIS, LL. D., Lecturer on Philosophy.

##### *First Section. Primarily for Undergraduates.*

1a. Psychology. The aim is to make this work a preparation for an intelligent study of Ethics and Philosophy. A careful study is made of the phenomena of intellect, feeling, and will as organic processes of the man developing into conscious universal relations. A text-book is used, with lectures, themes, and constant reference to the leading works on Psychology. Monday, Wednesday, and Friday, at 9.30, for three months.

1b. Logic. Creighton's or Minto's Logic is used as a text-book. Monday, Wednesday, and Friday, at 9.30, for two months.

1c. History of Philosophy. Outlines of the History of Philosophy. Text-books: Schwegler and Roger's. Monday, Wednesday, and Friday, at 9.30, for three months.

##### *Second Section. For Undergraduates and Graduates.*

20. Historical Ethics. A study of the chief ethical theories ; the members of the class are required to study the text of Aristotle, Kant, Mill, and Spencer, and to hand in well-prepared



abstracts of their systems. The class-room work is devoted to a critical exposition of these and other theories by means of lectures and discussions. Wednesday and Friday, at 10.30. First term.

21. Theory of Ethics. A critical and constructive theory of Ethics, including a course of lectures on the fundamental postulates, concepts, and principles of Christian Ethics. Wednesday and Friday, at 10.30. Second term.

22. History of Greek Philosophy. Special study of Plato and Aristotle. Knowledge of Greek is desirable for one taking this course. Lectures, prescribed readings, and theses. Tuesday and Thursday, at 10.30. First term.

23. History of Modern Philosophy. Lectures, prescribed readings, and theses. A reading knowledge of French and German is desirable. Tuesday and Thursday, at 10.30. Second term.

*Third Section. Primarily for Graduates.*

40. The Philosophy of Nature. A critical study of the fundamental concepts of Modern Physical Science. Prescribed readings, reports, and theses; Pearson's Grammar of Science; Stallo's Concepts and Theories of Modern Physics; Ward's Naturalism and Agnosticism; Holman's Matter, Energy, Force, and Work. Two hours, first term.

41. The Critical Philosophy of Kant. This course will presuppose a knowledge of the History of Philosophy. Some knowledge of German is essential. The work will be devoted chiefly to the study of Kant's Critique of the Pure Reason. Two hours, second term, alternating with Course 42.

42. Hegel's System. Open to those who have taken Courses 23 and 41. Knowledge of German required. The work will be chiefly upon Hegel's Logik. Two hours, second term, alternating with Course 41.

43. The Philosophy of Religion. Open to those who have taken Courses 20, 21, 41, and 42. Caird's Introduction to the Philosophy of Religion; Sterrett's Studies in Hegel's Philosophy of Religion. (Omitted in 1903-04.) Two hours, second term.

44. Ten lectures on the Philosophy of History, supplemented by a syllabus of prescribed readings, with theses and examination. Open to students who have taken at least Courses 22

and 23 in Philosophy and some courses in History. Two hours, second term. Professor HARRIS.

45. The Society for Philosophical Inquiry, of which the Head Professor of Philosophy is president, meets every Tuesday during the year. Work can be arranged in this connection to count as a two-hour course for the year.

### PHYSICS.

HOWARD L. HODGKINS, Ph. D., Head Professor of Physics  
FRANK E. MILLIS, Ph. D., Instructor in Physics.

#### *First Section. Primarily for Undergraduates.*

1. General Physics. A recitation and lecture course, embracing the fundamental principles of mechanics, sound, heat, light, and electricity. The lectures are illustrated by experiments. Plane trigonometry is used in the course, and only students who have completed or are studying trigonometry will be admitted. Monday, Wednesday, and Friday, at 4.30.

2. Laboratory Physics. A selected series of experiments, mainly quantitative. This course is designed to familiarize the student with the ordinary methods of exact experimentation, and to extend the knowledge of the principles of physics as gained in Course 1. This course is taken by Bachelor of Arts students who elect Course 1. Two two-hour periods. Tuesday and Thursday, at 10.30.

3. Laboratory Physics. Similar to Course 2, and required of all Bachelor of Science students. Two two-hour periods. Tuesday and Thursday, at 10.30.

#### *Second Section. For Undergraduates and Graduates.*

20. Sound. A lecture and laboratory course. Three periods. Monday, Wednesday, and Friday, at 10.30.

21. Heat. A lecture and laboratory course, based on Preston's Theory of Heat and Maxwell's Theory of Heat. Three periods. Monday, Wednesday, and Friday, at 11.30.

22. Light. A lecture and laboratory course, based on Preston's Theory of Light. Three periods. Monday, Wednesday, and Friday, at 2.30.



*Third Section. Primarily for Graduates.*

40. Light. Advanced study, experimental and mathematical, of some one branch of the subject. Three periods.

Students who desire to specialize in physics should take Courses 1 and 2 or 3 in the first year, and should also study mathematics. In the second year one of the courses, 20, 21, or 22, may be taken; in the third year the two remaining courses may be taken. In order to do this, calculus should be studied during the second year.

The physical Laboratory is open from 9.30 a. m. to 10 p. m., giving students opportunity to do extra work.

## ROMANCE LANGUAGES.

GEORGE N. HENNING, A. M., Head Professor of Romance Languages.

## FRENCH.

*First Section. Primarily for Undergraduates.*

1. Grammar, composition, drill in pronunciation. Fraser and Squair's French Grammar. Translation and reading of nineteenth century fiction and history. (400-500 pages.) For beginners. Monday, Wednesday, and Friday, at 10.30.

2. Identical with Course 1. Tuesday, Thursday, and Saturday, at 5.30.

4. Grammar, composition, conversation. Fraser and Squair's French Grammar. Grandgent's Selections for French Composition. Translation and reading. Daudet, *Trois Contes*; A. Dumas, fils, *la Question d'argent*; Mérimée, *Colomba*; A. France, *Sylvestre Bonnard*; Molière, *l'Avare*; Sarcy, *le Siège de Paris*; Coppée, *le Pater*; Zeller, *Richelieu*. (About 1,000 pages.) Open to students who have passed in Course 1 or 2, or have fulfilled the admission requirements in Elementary French. Tuesday, Thursday, and Saturday, at 4.30.

6. General survey of French literature, seventeenth to nineteenth centuries; Warren's French Prose of the Seventeenth Century, Canfield's French Lyrics, Lacombe's *Petite Histoire de peuple française*, Crane's *la Société française au XVIIe siècle*, Corneille, Molière, La Fontaine, Racine, St. Simon, Montesquieu, Marivaux, Voltaire, Buffon, Rousseau, Beaumarchais.

Hugo, Musset, Michelet, Balzac, Augier, Maupassant, Pailleuron. (About 1,600 pages.) Translation, analyses of works read, collateral reading and reports thereon, lectures on literature, philology and history. Composition. Grandgent's Selections for French Composition. Open to students who have passed in Course 4, or have fulfilled the admission requirements in Advanced French. Monday, Wednesday, and Friday, at 2.30.

*Second Section. For Undergraduates and Graduates.*

21. Seventeenth century literature; history, philosophy, criticism, memoirs, letters, eloquence, drama, fiction. Descartes, Pascal, La Rochefoucauld, La Bruyère, Boileau, St. Simon, Mme. de Sévigné, Bossuet, Corneille, Racine, Molière, Mme. de La Fayette, etc. (About 2,300 pages.) Translation, collateral reading and reports thereon, lectures on literature and history. Thesis. Open to students who have passed in Course 6. Given in 1904-05. Two hours.

23. Eighteenth century literature; history, philosophy, criticism, letters, drama, fiction, poetry. Montesquieu, Diderot, Rousseau, Voltaire, Marivaux, Destouches, Beaumarchais, Bernardin de St. Pierre, André Chénier, etc. (About 2,300 pages.) Translation, collateral reading and reports thereon, lectures on literature and history. Thesis. Open to students who have passed in Course 6. Given in 1903-04. Tuesday and Thursday, at 9.30.

25. Nineteenth century literature; history, philosophy, criticism, memoirs, travels, fiction. Thierry, Michelet, Mignet, Thiers, Taine, Sainte-Beuve, Brunetière, France, Renan, Gautier, Mme. de Staël, Chateaubriand, Dumas père, Hugo, de Vigny, George Sand, Mérimée, Balzac, Flaubert, Daudet, Maupassant, etc. (About 2,400 pages.) Translation, collateral reading and reports thereon, lectures on literature and history. Thesis. Open to students who have passed in Course 6. Monday and Wednesday, at 11.30.

27. Nineteenth century literature; drama and lyric poetry. Dumas père, Hugo, de Vigny, de Musset, Ponsard, Scribe, Dumas fils, Augier, Rostand, Lamartine, the Romantic poets, the Parnassians, the Symbolists, etc. (About 1,200 pages.) Translation, collateral reading and reports thereon, lectures. Thesis. Open to students who have passed in Course 6. Friday, at 11.30.



*Third Section. Primarily for Graduates.*

43. Old French and philology. Darmesteter's Historical French Grammar. La Chanson de Roland, etc. One hour.

## SPANISH.

*First Section. Primarily for Undergraduates.*

1. Grammar, composition. Edgren's Elementary Spanish Grammar. Ford's Spanish Composition. Translation and reading of nineteenth century fiction and drama. (500-600 pages.) Not open to first-year students. Open only to students who have had at least one year of French or Latin. Monday, Wednesday, and Friday, at 1.30.

3. Translation and reading of nineteenth and seventeenth century works; history, fiction, drama, lyric poetry. (About 1,000 pages.) Lectures on literature and history. Open to students who have passed in Course 1 with at least the grade of C. Given in 1903-04. Tuesday and Thursday, at 10.30.

## ITALIAN.

*First Section. Primarily for Undergraduates.*

1. Grammar, composition. Grandgent's Italian Grammar. Grandgent's Italian Composition. Translation and reading of nineteenth century fiction and drama. (500-600 pages.) Not open to first-year students. Open only to students who have had at least one year of French or Latin. Students may not elect Spanish and Italian in the same year. Given in 1904-05. Two hours.

## ZOÖLOGY.

THEODORE NICHOLAS GILL, M. D., Ph. D., LL. D.,  
Professor of Zoölogy.

PAUL BARTSCH, M. S., Professor of Zoölogy.

*First Section. Primarily for Undergraduates.*

1. Elementary Zoölogy. This includes lectures and laboratory work. The lectures in their scope cover all the branches of the animal kingdom, from the unicellular organisms to mammals, and correlated with these lectures is the study and dissection of type specimens in each group. This course is

intended to familiarize the student with biological characters, classificatory laws, and the general principles of evolution.

Lecture, one hour; laboratory, one two-hour period.  
Monday and Friday, at 5.30.

*Second Section. For Undergraduates and Graduates.*

20. Advanced Zoölogy. Continuation of the work mapped out in Course 1, special attention being given to comparative morphology and histology of animal tissues.

Lecture, one hour; laboratory, one two-hour period.  
Monday and Friday, at 4.30.

21. Ornithology. In this course special attention is directed to the study of the birds of the District of Columbia. Frequent field excursions are made to familiarize the student with the haunts and habits of these forms.

Lecture, one hour; laboratory, one two-hour period.  
Tuesday and Thursday, at 4.30.

Special courses for teachers in the public schools and others desiring to take up special or advanced lines of work may be arranged upon consultation with the professor.

The collections of the United States National Museum and the Smithsonian Institution are consulted in connection with all these courses.

*Third Section. Primarily for Graduates.*

40. A general course of lectures on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation, and the systems of zoölogy as determined by comparative anatomy. The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.



## SCHEDULE

Hour.	MONDAY.	TUESDAY.	WEDNESDAY.
9	Chapel.	Chapel.	Chapel.
9.30	History, 25. Mathematics, 1, 3, 5. Philosophy, 1.	English, 1. French, 23. Greek, 20.	Mathematics, 1, 3, 5. Philosophy, 1.
10.30	English, 3. French, 1. Physics, 20.	History, 1. Latin, 20, 21. Philosophy, 22, 23. Physics, 2, 3. Spanish, 3.	English, 3. French, 1. Philosophy, 20, 21. Physics, 20.
11.30	French, 25. German, 1. Greek, 3. Mathematics, 7, 9, 10. Physics, 21.	German, 20. History, 2. Physics, 2, 3.	French, 25. German, 1. Greek, 3. Mathematics, 7, 9, 10. Physics, 21.
12.30	Recess.	Recess.	Recess.
1.30	English, 23. German, 4. Spanish, 1.	Chemistry, 2, 3. English, 20. Greek, 22.	English, 23. German, 4. Spanish, 1.
2.30	French, 6. Greek, 1. Physics, 22.	Chemistry, 2, 3. English, 21. Greek, 2. History, 23, 24.	French, 6. Greek, 1. History, 20. Physics, 22.
3.30	Latin, 1. Latin, 3.	German, 21. History, 21.	History, 22. Latin, 1. Latin, 3.
4.30	Applied Mathematics, 20. Chemistry, 27. Civil Engineering, 22. English, 2. Geology, 20. Mathematics, 21, 23. Mechanical Engin., 22. Physics, 1. Zoology, 20.	Archæology, 20. Chemistry, 1. Civil Engineering, 2. Civil Engineering, 3. Electrical Engin., 1, 2. Electric! Engin., 20, 21. French, 4. German, 2. Mathematics, 4. Meteorology, 20. Political Science, 22. Zoology, 21.	Applied Mathematics, 20. Chemistry, 27. Civil Engineering, 22. English, 4. Mathematics, 21, 23. Physics, 1.
5.30	Astronomy, 1. Chemistry, 26. Electrical Engin., 22. English, 28. Geology, 2. Graphics, 1. Mathematics, 6, 8. Mechanical Engin., 2. Mechanical Engin., 3. Zoology, 1.	Chemistry, 6. Civil Engineering, 1. French, 2. Geology, 1. German, 3. Graphics, 8. Mathematics, 2. Meteorology, 1. Political Science, 20.	Applied Mathematics, 22. Architecture, 1. Chemistry, 27. Civil Engineering, 2. Civil Engineering, 4. Electrical Engin., 1, 2. English, 5. Graphics, 21. Mathematics, 6, 8. Mechanical Engin., 2. Mechanical Engin., 3.

FOR 1903-1904.

THURSDAY.	FRIDAY.	SATURDAY
Chapel.	Chapel.	
English, 1. French, 23. Greek, 20.	Mathematics, 1, 3, 5. Philosophy, 1.	
History, 1. Latin, 20, 21. Philosophy, 22, 23. Physics, 2, 3. Spanish, 3.	English, 3. French, 1. Philosophy, 20, 21. Physics, 20.	
German, 20. Greek, 21. History, 2. Latin, 21. Physics, 2, 3.	French, 27. German, 1. Greek, 3. Mathematics, 7, 9, 10. Physics, 21.	
Recess.	Recess.	
Chemistry, 2, 3. Greek, 22.	English, 23. German, 4. Spanish, 1.	
Chemistry, 2, 3. English, 21. History, 23, 24.	French, 6. Greek, 1. History, 20. Physics, 27.	
German, 21. History, 21. Latin, 1.	Latin, 2. Latin, 3. History, 22.	
Archæology, 20. Chemistry, 1. Civil Engineering, 3. Electrical Engin., 20, 21. French, 4. German, 2. Graphics, 20. Mathematics, 4. Mechanical Engin., 1. Mechanical Engin., 22. Meteorology, 20. Political Science, 23. Zoology, 21.	Applied Mathematics, 20. Chemistry, 23. Civil Engineering, 22. English, 2. Geology, 20. Mathematics, 21, 23. Physics, 1. Zoology, 20.	Chemistry, 1. Civil Engineering, 21. Electrical Engin., 20, 21. French, 4. German, 2. Graphics, 20. Mathematics, 4. Mechanical Engin., 1.
Astronomy, 1. Chemistry, 24. French, 2. Geology, 1. German, 3. Graphics, 8. Mathematics, 2. Meteorology, 1. Political Science, 21.	Applied Mathematics, 21. Chemistry, 26. Civil Engineering, 4. Civil Engineering, 20. English, 28. Geology, 2. Graphics, 1. Graphics, 3. Mathematics, 6, 8. Zoology, 1.	Applied Mathematics, 22. Architecture, 2. Chemistry, 24. Civil Engineering, 1. Electrical Engin., 1, 2. Electrical Engin., 22. French, 2. German, 3. Graphics, 3. Graphics, 21. Mechanical Engin., 3.



## COURSES IN MEDICINE AND LAW.

Certain courses in the Departments of Medicine, Law, Jurisprudence and Diplomacy are open to students in the Department of Arts and Sciences. In general the courses may be taken during the last year of undergraduate work and during the years of graduate work, but the number of courses in these departments to be taken by any student will be limited and the courses must be properly related to his principal subjects of study for his degree.

Such courses may be elected from the following subjects in the Department of Medicine :

Anatomy,  
Neurology,  
Bacteriology,  
Bio-Chemistry and Physiologic Chemistry,  
Histology,  
Hygiene,  
Pathology,  
Physiology.

Descriptions of the courses in these subjects are to be found in the announcements of the Department of Medicine.

Such courses may be elected, also, from the following subjects in the Departments of Law, and of Jurisprudence and Diplomacy :

History of the Common Law,  
Ancient and Roman Law,  
Mediæval and Modern Civil Law,  
Constitutional Law,  
International Law,  
European Diplomacy and Treaties,  
Diplomacy and Treaties of the United States,  
Statistics and Social Economics,  
Comparative Politics.

Descriptions of the courses in these subjects are to be found in the announcements of the Departments of Law, and of Jurisprudence and Diplomacy.

## REQUIREMENTS FOR DEGREES.

## UNDERGRADUATE DEGREES.

The undergraduate degrees offered by the University are Bachelor of Arts and Bachelor of Science. To be recommended for either of these degrees, the student must be registered in the Department of Arts and Sciences for at least one academic year, he must satisfy the admission requirements, and must complete at least sixty hours of undergraduate courses with the requisite grades.

The undergraduate courses leading to the degrees of Bachelor of Arts and Bachelor of Science are arranged especially with the design of giving a systematic discipline in liberal studies or the appropriate foundation for the specialized work in the various graduate and professional departments in the University.

To this end the disciplinary methods customary in college teaching are followed in the work of the first two years, or in the completion of two-thirds of the undergraduate requirements, which is designated as the "General Culture" course, while in the third year, or in the pursuit of the last third of the requirements, there is a transition to the university methods pursued in graduate schools.

In fulfillment of this idea, the "group" arrangement of studies has been in general adopted, being the mean between a fixed curriculum and the elective system, as it permits a reasonable liberty of choice, and at the same time preserves the correlation of studies best adapted for giving liberal culture and for gradually leading the student toward the career of specialized study he wishes to pursue.

The courses designed primarily for first and second year students are those numbered from 1 to 19. The courses designed primarily for third-year students are those numbered from 20 to 39.

Students may elect as a part of the work of the third year the first year's work in the Department of Medicine or of Law. For such professional courses students may receive credit for as many units of work, not exceeding ten, as would be granted for the same time in courses under University Subjects.

COURSES OF STUDY LEADING TO THE DEGREE OF  
BACHELOR OF ARTS.

To be recommended for the degree of Bachelor of Arts, the student must complete courses of study aggregating at least



sixty units. The unit of credit is one hour of recitation or lecture work per week for one academic year. Laboratory hours count one-half unit each. Forty of these units are prescribed studies and twenty are electives. The elective studies may be evenly distributed between Group Electives and Free Electives, as indicated in the following plan :

I. Prescribed Studies . . . . .	40 units
II. Group Electives . . . . .	10 units
III. Electives . . . . .	10 units

The Prescribed Studies, embraced within the first two years of the curriculum, are arranged in four "groups," each comprising (1) studies required of all Bachelor of Arts undergraduates ; (2) studies especially emphasized in each group. The Group Electives consist of optional courses embracing cognate studies, chosen in the third year.

The courses of study and the schedule are so arranged that all the requirements for the Bachelor of Arts degree may be completed in three years by the attainment of twenty units each year, but in cases where it is necessary or expedient a longer period will be granted for the completion of the course.

The courses of study leading to the degree of Bachelor of Arts are as follows :

#### GROUP I.

##### *Classical Course.*

This is essentially the old College course, with due emphasis on the experimental and social sciences. Stress is laid upon Latin and Greek, each of which is studied two years. This group lays the foundation for graduate courses in philology and literature.

<i>First Year.</i>		<i>Second Year.</i>	
	Units.		Units
English . . . . .	3	English . . . . .	3
Latin . . . . .	4	Latin . . . . .	3
Mathematics . . . . .	3	Greek . . . . .	3
Greek . . . . .	4	German or French . . . . .	3
French or German . . . . .	3	Physics or Chemistry . . . . .	5
History . . . . .	3	Philosophy . . . . .	3

##### *Third Year.*

A. Ten hours, preferably from Group Elective 1. (See page 62.)

B. Ten hours of third-year electives.

## GROUP II.

*Modern Language Course.*

This group is designed for students who wish a literary training based upon the modern rather than upon the ancient languages. It differs from Group I in that it omits Greek, devotes more time to English, and emphasizes the study of French and German as factors in a liberal education. If the student has attained proficiency in French he may, in the second year, substitute Spanish or Italian for French. This group lays the foundation for graduate courses in philology and literature.

*First Year.*

	Units.
English . . . . .	4
Latin . . . . .	4
Mathematics . . . . .	3
French . . . . .	3
German . . . . .	3
History . . . . .	3

*Second Year.*

	Units.
English . . . . .	3
Latin . . . . .	3
Romance Languages . . . . .	3
German . . . . .	3
Physics or Chemistry . . . . .	5
Philosophy . . . . .	3

*Third Year.*

A. Ten hours, preferably from Group Elective I. (See page 62.)

B. Ten hours of third-year electives.

## GROUP III.

*Historical-Political Course.*

This group is designed to give liberal culture, chiefly through attention to the social sciences. It affords a basis for the subsequent study of history, the political and social sciences, or for the profession of law.

*First Year.*

	Units.
English . . . . .	3
Latin . . . . .	4
Mathematics . . . . .	3
French . . . . .	3
German . . . . .	3
History . . . . .	2
Politics and Economics . . . . .	2

*Second Year.*

	Units.
English . . . . .	3
French or German . . . . .	3
Physics or Chemistry . . . . .	5
History . . . . .	4
Politics and Economics . . . . .	2
Philosophy . . . . .	3



*Third Year.*

- A. Ten hours, preferably from Group Elective 2.  
 B. Ten hours of third-year electives.

## GROUP IV.

*Mathematical-Physical Course.*

The chief feature of this group is the predominance given to mathematics and the experimental sciences as elements of general culture. It provides for two years each of mathematics, physics, and chemistry, and differs from the Bachelor of Science groups in that it prescribes two years of English and one year of Latin. The group affords a satisfactory basis for the subsequent study of the mathematical and physical sciences and for the profession of medicine; and it will appeal especially to scientific students who desire to combine the pursuit of the humanities with that of the sciences.

<i>First Year.</i>		<i>Second Year.</i>	
	Units.		Units.
English . . . . .	3	English . . . . .	3
Latin . . . . .	4	Mathematics . . . . .	3
Mathematics . . . . .	3	French or German . . . . .	3
French or German . . . . .	3	Physics and Chemistry . . . . .	7
Physics or Chemistry . . . . .	5	Philosophy . . . . .	3
History . . . . .	2	Politics . . . . .	1

*Third Year.*

- A. Ten hours, preferably from Group Elective 3 or 4.  
 B. Ten hours of third-year electives.

*Group Electives.*

1. Languages—Greek, Latin, Romance, German, English.
2. Philosophy, History, Politics, Economics.
3. Mathematics, Physics, Chemistry, Astronomy.
4. Physics, Chemistry, Geology, Botany, Zoölogy.

## COURSES OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

To be recommended for the degree of Bachelor of Science, the student must complete courses of study aggregating at least sixty units. The unit of credit is one hour of recitation or lecture work per week for one academic year. Laboratory hours count one-half unit each. Forty of these units must be

selected from courses announced as suitable for first and second year students, and must include the topics named below, and twenty of the units must be selected from courses announced as suitable for third year students.

Since there are certain options and electives in the studies that may be offered in satisfaction of the admission requirements, there will be corresponding variations in the courses that must be taken by students; but in every case the following subjects must be completed :

	Courses.
English . . . . .	1 or 2 and 4
Mathematics . . . . .	1, 3, 5, 7, 9, 10, or 2, 4, 6, 8
French . . . . .	1, 2
German . . . . .	1, 3
Chemistry . . . . .	1 and 2 or 3
Physics . . . . .	1, 3
Electives :	

Section 1. History, Economics, Philosophy.  
One two-hour course.

Section 2. Astronomy, Botany, Geology.  
Mineralogy, Meteorology, Zoölogy.  
Two two-hour courses.

If any of these topics be presented and accepted in satisfaction of the admission requirements, additional topics must be taken, so that the total work for the degree shall aggregate sixty units, divided, as mentioned above, between the topics open to first and second-year students and those open to third-year students.

The courses of study and the schedule are so arranged that all the requirements for the degree may be completed in three years by the attainment of twenty units each year; but in cases where it is expedient or necessary a longer period will be granted for the completion of the course.

If a student elect studies largely in one line of work, a diploma may be issued stating the course for which the degree is given.

The courses of study leading to the degree of Bachelor of Science are as follows :

#### GROUP I.

##### *General Course.*

The studies in this group are required of all candidates for the degree of Bachelor of Science, and are included in each of the succeeding groups. The order of topics will vary somewhat according to the topics offered for admission and accord-



ing to the subjects that the student plans to elect. In general, the subjects may be distributed as follows:

<i>First Year.</i>		<i>Second Year.</i>	
	Units.		Units.
English . . . . .	3	Mathematics . . . . .	3
Mathematics . . . . .	3	French or German . . . . .	3
French . . . . .	3	Electives, Section 1 or	
German . . . . .	3	Section 2 . . . . .	4
Physics or Chemistry . . . . .	6	Physics or Chemistry . . . . .	3
Electives, Section 1 or		Electives . . . . .	7
Section 2 . . . . .	2		

*Third Year.*

Twenty hours of third-year electives.

GROUP II.

*Civil Engineering.*

On the completion of this group the student may be given the degree of Bachelor of Science in Civil Engineering. The completion of this group admits the student to the course leading to the degree of Civil Engineer.

<i>First Year.</i>		<i>Second Year.</i>	
	Units.		Units.
Mathematics . . . . .	6	Calculus . . . . .	3
English . . . . .	3	Mechanics . . . . .	3
French or German . . . . .	3	Hydraulics . . . . .	1
Freehand Drawing . . . . .	1	Railroad Engineering . . . . .	2
Mechanical Drawing . . . . .	2	Sanitary Engineering . . . . .	2
Descriptive Geometry . . . . .	2	Graphic Statics . . . . .	2
Surveying . . . . .	2	Physics or Chemistry . . . . .	3
Materials of Construction . . . . .	2	French or German . . . . .	3
		Electives, Section 1 or	
		Section 2 . . . . .	2

*Third Year.*

	Units.
Hydraulic Engineering . . . . .	1
Masonry . . . . .	1
Structures . . . . .	3
Strength of Materials . . . . .	2
Metallurgy . . . . .	1
French or German . . . . .	3
Physics and Chemistry . . . . .	6
Electives, Section 1 or Section 2 . . . . .	4

## GROUP III.

*Electrical Engineering.*

On the completion of this group the student may be given the degree of Bachelor of Science in Electrical Engineering. The completion of this group admits the student to the course leading to the degree of Electrical Engineer.

<i>First Year.</i>		<i>Second Year.</i>	
	Units.		Units.
Mathematics . . . . .	6	Calculus . . . . .	3
English . . . . .	3	French . . . . .	3
French or German . . . . .	3	German . . . . .	3
Freehand Drawing . . . . .	1	Machine Drawing . . . . .	2
Mechanical Drawing . . . . .	2	Kinematics . . . . .	1 ½
Descriptive Geometry . . . . .	2	Chemistry . . . . .	4 ½
Physics . . . . .	4 ½	Electricity, Lectures and Laboratory . . . . .	6
		Electives, Section 1 . . . . .	2

*Third Year.*

	Units.
Mechanics . . . . .	3
Hydraulics . . . . .	1
Metallurgy . . . . .	1
Machine Design . . . . .	2
Power plants . . . . .	2
Strength of Materials . . . . .	2
Electricity, Lectures and Laboratory . . . . .	8
Electives, Section 2 . . . . .	4

## GROUP IV.

*Mechanical Engineering.*

On the completion of this group the student may be given the degree of Bachelor of Science in Mechanical Engineering. The completion of this group admits the student to the course leading to the degree of Mechanical Engineer.

<i>First Year.</i>		<i>Second Year.</i>	
	Units.		Units.
Mathematics . . . . .	6	Calculus . . . . .	3
English . . . . .	3	French . . . . .	3
French or German . . . . .	3	German . . . . .	3
Freehand Drawing . . . . .	1	Machine Drawing . . . . .	2
Mechanical Drawing . . . . .	2	Kinematics . . . . .	1 ½
Descriptive Geometry . . . . .	2	Chemistry . . . . .	5
Physics . . . . .	5	Mechanical Engineer- ing . . . . .	3
		Electives, Section 1 . . . . .	2



*Third Year.*

	Units.
Mechanics . . . . .	3
Metallurgy . . . . .	1
Electives, Section 2 . . . . .	4
Machine Design . . . . .	2
Mechanical Engineering . . . . .	15

## GROUP V.

*Chemistry.*

On the completion of this group the student may be given the degree of Bachelor of Science in Chemistry.

*First Year.**Second Year.*

	Units.		Units.
Mathematics . . . . .	3	Mathematics . . . . .	3
English . . . . .	3	French or German . . . . .	3
Freehand Drawing . . . . .	1	Physics . . . . .	5
Mechanical Drawing . . . . .	2	Chemistry, Lectures and	
Machine Drawing . . . . .	2	Laboratory . . . . .	9
French . . . . .	3		
German . . . . .	3		
Chemistry, Lectures and			
Laboratory . . . . .	5		

*Third Year.*

Electives, Section 1 or Section 2 . . . . .	6
Chemistry, Lectures and Laboratory . . . . .	14

## GROUP VI.

*Architecture.*

On the completion of this group the student may be given the degree of Bachelor of Science in Architecture.

*First Year.**Second Year.*

	Units.		Units.
Mathematics . . . . .	3	Mathematics . . . . .	3
English . . . . .	3	French or German . . . . .	3
French . . . . .	3	Physics } . . . . .	10
German . . . . .	3	Chemistry } . . . . .	
Electives, Section 2 . . . . .	2	Electives, Section 1 . . . . .	2
Mechanical Drawing . . . . .	2	Architecture . . . . .	8
Descriptive Geometry . . . . .	2		
Architecture . . . . .	4		

*Third Year.*

	Units.
Calculus . . . . .	3
Strength of Materials . . . . .	2
Mechanics . . . . .	3
Metallurgy . . . . .	1
Electives, Section 2 . . . . .	2
Graphic Statics . . . . .	2
Architecture . . . . .	12

## GROUP VII.

*Libraries and Archives.*

On the completion of this group the student may be given the degree of Bachelor of Science in Libraries and Archives.

*First Year.*

	Units.
Mathematics . . . . .	3
English . . . . .	4
French . . . . .	3
German . . . . .	3
Physics or Chemistry . . . . .	3
History . . . . .	3
Electives, Section 2 . . . . .	2

*Second Year.*

	Units.
Mathematics . . . . .	3
English . . . . .	5
French . . . . .	3
German . . . . .	3
Physics or Chemistry . . . . .	3
Libraries and Archives . . . . .	5

*Third Year.*

	Units.
English . . . . .	2
French or German . . . . .	3
Libraries and Archives . . . . .	5
Spanish or Italian . . . . .	3
Physics or Chemistry . . . . .	3
Economics or Philosophy . . . . .	2
History . . . . .	3
Electives, Section 2 . . . . .	2

## UNDERGRADUATE AND PROFESSIONAL COURSES.

Students in the last year of their undergraduate course may take as part of their elective the first year's work in the Department of Medicine or of Law, and may receive credit for as many units of work, not exceeding ten, as would be granted for the same time in courses under University Subjects.



## HIGHER DEGREES.

## DEGREE OF MASTER OF ARTS.

In every case the degree of Bachelor of Arts from an institution of learning whose degrees are recognized by the University, or the equivalent of this degree, will be required. Moreover, the courses of study pursued for this degree must be approved by the University Council as qualifying the candidate for pursuing a chosen line of study for the Master's degree.

A candidate for this degree shall pass at least one full year of residence and study at this University, and shall sustain satisfactory examinations on the studies pursued and present an acceptable thesis, together with a bibliography.

Three full courses throughout the year shall be the minimum required as constituting a full year's work.

The courses chosen must be passed upon by the President's Council and have the approval of the professors under whom they are to be taken.

These courses may consist of special study or research work. In any case they must form a consistent plan of work, for which the candidate's previous work has qualified him.

No work done for a Bachelor's degree shall be counted again for a Master's degree.

Theses in their final form must be presented not later than May 1.

## DEGREE OF MASTER OF SCIENCE.

In every case the degree of Bachelor of Science from an institution of learning whose degrees are recognized by the University, or the equivalent of this degree, will be required. Moreover, the courses of study pursued for this degree must be approved by the University Council as qualifying the candidate for pursuing a chosen line of study for the Master's degree.

A candidate for this degree shall pass at least one full year of residence and study at this University, and shall sustain satisfactory examinations on the studies pursued and present an acceptable thesis, together with a bibliography.

Three full courses throughout the year shall be the minimum required as constituting a full year's work.

The courses chosen must be passed upon by the President's Council and have the approval of the professors under whom they are to be taken.

These courses may consist of special study or research work.

In any case they must form a consistent plan of work, for which the candidate's previous work has qualified him.

No work done for Bachelor's degree shall be counted again for a Master's degree.

Theses in their final form must be presented not later than May 1.

#### DEGREES IN ENGINEERING.

In every case the degree of Bachelor of Science, or the equivalent of this degree, will be required. Moreover, the courses of study pursued for the Bachelor's degree must be approved by the University Council as qualifying the candidate for pursuing the chosen line of study for the degree.

A candidate for a degree in Engineering shall pass at least one full year of residence and study at this University, and shall sustain satisfactory examinations on the studies pursued and present an acceptable thesis, together with a bibliography.

Three full courses will be the minimum required as constituting a full year's work. At least one-half of this work must be in the course in which the degree is sought and the balance in correlated courses. The courses chosen must be passed upon by the President's Council and have the approval of the professors under whom they are to be taken.

Theses in their final form must be presented not later than May 1.

#### DEGREE OF DOCTOR OF PHILOSOPHY.

GENERAL STATEMENT.—The degree of Doctor of Philosophy is conferred upon students who have pursued specialized courses in university subjects and engaged in original research in certain of the various departments of letters or science, under university auspices, for a period of not less than three years, and have submitted an acceptable thesis and met all the requirements prescribed. The degree is given, however, not because of the faithful completion of a course of study according to a stated program for a given length of time, but for high attainments and proved ability to do research work in some special branch of knowledge, as determined by the various tests applied.

ELIGIBILITY OF THE CANDIDATE.—A candidate for the degree must hold a bachelor's or master's degree, as offered by colleges of approved standing, in arts, philosophy, or science, or an engineering degree, or an equivalent of one of these. The student may be credited with graduate work done at other universities, provided that such work is shown to be of grade similar to that required here, but at least one year must



be spent in residence at this University and the other requirements of the degree as prescribed here must be fulfilled.

**REQUIREMENTS FOR THE DEGREE.**—Candidates for the degree of Doctor of Philosophy shall offer themselves in three topics from the University Subjects—one major and two collateral minor studies—the combination to be approved by the President's Council. These must be pursued under the guidance of a sub-committee consisting of the professors in charge of the departments in which studies are pursued, with the professor in the major subject as chairman. This sub-committee, in charge of the candidate, shall determine his division of time, study, and research among the major and minor topics, but in general the major topic should be pursued during the whole time devoted to graduate work, and each minor topic during at least one year.

The candidate shall pass satisfactory written examinations upon the three subjects selected. The examinations in the minor topics may be taken at the completion of the courses pursued or at the discretion of the professor in charge. In written examinations the time limit is four hours for the major and three hours for the minor topics.

The candidate must show that he possesses a reading knowledge of French and German, as evinced by familiarity with philological or scientific monographs pertaining to his special branches of study. The head professor of a subject may require such knowledge of other subjects as is considered fundamental.

The candidate must present a satisfactory thesis, together with an exhaustive bibliography, exhibiting independent research in some branch of his major subject, under the following regulations :

**REGULATIONS REGARDING THESES.**—Theses must be presented not later than May 1 of the year in which the degree is sought. After their acceptance, theses, with their accompanying drawings, are the property of the University, and must be deposited in the University archives, but authors are permitted to make copies. All theses must be typewritten on official thesis paper, which may be obtained from the Registrar of the University.

No thesis for the degree of Doctor of Philosophy shall be submitted to the University Council until it has been approved by the professor having supervision of the major topic, and also by a co-referee to be appointed by the President's Council. The referees shall present to the Council written reports on the thesis to be filed therewith.

The candidate is expected to print his thesis, under the supervision of the professor in charge of his major topic, within one year after the degree is conferred, and shall present one hundred copies to the University, to be distributed among institutions of learning.

The candidate must defend his thesis and submit to an oral examination upon his major topic before a board of experts consisting of three specialists of university standing and established reputation in the subject represented by the principal topic, to be appointed by the President's Council.

#### DOCTORATE DISPUTATION.

A Doctorate Disputation was held publicly in University Hall May 25, 1903. The theses that were successfully defended, the candidates, and the boards of examiners were as follows:

Candidate: EDWIN ALLSTON HILL, A. B. 1875, A. M. 1902, Yale University; M. S. 1901, The Columbian University.

Thesis: The constitution of oxyacids from the thermochemical standpoint.

Board: Frank K. Cameron, Ph. D.; H. N. Stokes, Ph. D.; Allerton S. Cushman, Ph. D.; Professor Harvey Washington Wiley, Ph. D., M. D., presiding.

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Candidate: WILLIAM MATHER LAMSON, B. S. 1897, C. E. 1899, The Columbian University.

Thesis: On iron and steel domes.

Board: Bernard R. Green, S. B.; J. Rush Marshall, F. I. A.; Ewald Schmitt, A. M. Am. Soc. C. E. & I. A.; Professor Howard Lincoln Hodgkins, Ph. D., presiding.

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Candidate: THOMAS MALCOLM PRICE, B. S. 1899, Maryland Agricultural College; M. S. 1900, The Columbian University.

Thesis: The influence of varying strength solutions of formaldehyde on some of the enzymes of animal origin.

Board: General George M. Sternberg, U. S. A.; C. F. Langworthy, Ph. D.; H. J. Patterson, Ph. D.; Professor Emil A. de Schweinitz, Ph. D., M. D., presiding.

Candidate : HARRIET RICHARDSON, A. B. 1896, A. M. 1901, Vassar College.

Thesis : Contributions to the natural history of the Isopoda.

Board : J. Walter Fewkes, Ph. D. ; H. F. Moore, Ph. D. ; James E. Benedict, Ph. D. ; Professor Theodore Nicholas Gill, M. D., Ph. D., LL. D., presiding.

#### PRIZES.

STAUGHTON AND ELTON PRIZES.—The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar in each of these languages.

RUGGLES PRIZES.—The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded to the best two scholars in Pure and Applied Mathematics.

MUNROE PRIZE.—Professor Munroe offers a gold medal to that student from any Washington High School or the Manual Training School who shall attain the highest mark in Chemistry among those passing the entrance examinations, and shall remain in regular attendance for one year.

CLASS OF '96 JAMES MACBRIDE STERRETT, JR., MEMORIAL MEDAL.—This prize is annually awarded to that student taking Course 1 in Physics who obtains the highest average in a special examination on a given subject and in the writing of an essay on an assigned topic. Only candidates for degrees may compete for this prize.

DAVIS PRIZES.—The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL. D., of Massachusetts, consist of three gold medals, annually awarded to the successful competitors in a public contest. Members of the Senior Class are eligible to compete for these prizes.

DAUGHTERS OF THE AMERICAN REVOLUTION PRIZES.—These prizes, founded by the Daughters of the American Revolution of the District of Columbia, consist of two gold medals, awarded annually to the two students in the graduating class who, having maintained a high standing in the regular courses in History during three years, shall produce the best essays upon an assigned topic of American history.



**THOMAS F. WALSH PRIZE IN IRISH HISTORY.**—This prize is a gold medal, awarded to that student in the graduating class who, having maintained a high standard in the regular courses of History, shall produce the best essay based upon the study of some period of Irish history.

**E. K. CUTTER PRIZE.**—The E. K. Cutter Prize in English was founded by the late Marion Kendall Cutter. The endowment is a fund of one thousand dollars, the income of which is given annually as a prize "for excellence in the study of English." The prize will be awarded to that member of the graduating class whose record in English, combined with general excellence, shows most marked aptitude and attainment in English studies.

**WILLIE E. FITCH PRIZE.**—The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of fifty dollars, which is awarded annually for the best examination in Chemistry.

**SCHMIDT PRIZE.**—Mr. Fred. A. Schmidt offers a prize to the regular student who attains the highest standing in Descriptive Geometry, Trigonometry, and Analytic Geometry. Detailed announcement will be made at the opening of the session.

**MUTH PRIZE.**—Geo. F. Muth & Co. offer a set of Drawing Instruments to the full-course student taking Machine Drawing who makes the highest average record in that subject and in the previous year's Mechanical Drawing.

#### PRIZE AWARDS, 1902-1903.

Staughton Prize . . . . .	Levi Russell Alden.
Elton Prize . . . . .	Ella Arvilla Merritt.
Class of '96 James Macbride Sterrett, Jr., Memorial Medal . .	Henry Warner Maynard.
Davis Prizes . . . . .	{ Levi Russell Alden.
	{ Ella Arvilla Merritt.
Daughters of the American Revolution Prizes . . . . .	{ Levi Russell Alden.
	{ Herbert James Bryson.
Thomas F. Walsh Prize . . . .	Levi Russell Alden.
E. K. Cutter Prize . . . . .	Levi Russell Alden.
Willie E. Fitch Prize . . . . .	Walter O. Snelling.
Schmidt Prize . . . . .	Edwin Vivian Dunstan.
Muth Prize . . . . .	Frederick Wilhelm Albert.

## SCHOLARSHIPS.

All scholarships except the Kendall Scholarship and the University Scholarships are awarded for one year only, but they may be renewed. Students holding scholarships pay the matriculation fee. Applications for scholarships should be filed with the Corresponding Secretary of the University not later than September 15th.

**KENDALL SCHOLARSHIP.**—The Kendall Scholarship, founded by the late Hon. Amos Kendall, is annually conferred on that student from any of the Washington High Schools or from the Manual Training School who attains the highest average in the May entrance examinations. This scholarship continues throughout the undergraduate course.

**UNIVERSITY SCHOLARSHIPS.**—The University offers also six scholarships, each continuing throughout the undergraduate course, to be awarded annually to members of the graduating classes of the High Schools of Washington and of the Manual Training School. The scholarships will be divided among the several schools in proportion to the number of students in attendance upon each. Three scholarships are offered to young men and three to young women. No scholarship will be awarded to a candidate whose examination average is below 80 per cent. Candidates for these scholarships will take the May entrance examinations for the undergraduate course leading to the degree of Bachelor of Arts or the degree of Bachelor of Science, as they shall elect, and on the results of these examinations the scholarships will be assigned. Holders of these scholarships will be expected to pursue a regular course, classical or scientific, leading to a degree.

**MARY LOWELL STONE SCHOLARSHIP.**—This scholarship was founded by a woman in memory of a woman student of science. It consists of a fund of two thousand dollars, the income from which is to be paid to needy women students of science in the University; it will be awarded by the President's Council.

**CARTER SCHOLARSHIPS.**—The Carter Scholarships, founded by Mrs. Mary M. Carter in memory of her husband, Henry Harding Carter, consist of four scholarships of the annual value of fifty dollars each, and may be awarded to deserving students who are preparing for the civil engineering profession.

**POWELL SCHOLARSHIPS.**—The Powell Scholarships were founded by the late Admiral Powell, U. S. Navy. The income



from this endowment is for "the free education of such young men as may desire to take advantage of the said endowment by way of their preparation for entrance into the Naval Academy at Annapolis, Maryland, or such as may fit them to become mates or masters in the Merchant Marine Service of the United States," and of "such apprentices as, having filled their time in the great steam manufactory establishments of the country, may apply for appointment from civil life in the Steam Engineer Department of the United States Navy." The number of scholarships awarded each year will be determined by the income from the endowment. Each scholarship will entitle the beneficiary to free tuition for one year. Such special courses of study are offered to each student as will give him the instruction needed to accomplish the purpose for which he is awarded the scholarship.

#### FINAL EXAMINATIONS.

Examinations are conducted under the following rules of the Board of Trustees :

Examinations for degrees shall close at least three weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported to the President at least two weeks before the date of the commencement.

No student shall be admitted to an examination for promotion from a lower to a higher class or to a final examination who is in arrears for tuition and whose name has not been certified by the Registrar to the professors proposing to hold an examination.

Professors and instructors will require students entering such examinations to present their cards of admission from the Registrar before permitting them to be examined.

#### ANNUAL COMMENCEMENT.

The Annual Commencement is held on the Wednesday nearest the first of June.

All the degrees are publicly conferred on Commencement Day. Prizes for special excellence in any department are publicly delivered on the same day.

Candidates for degrees are expected to appear at the Commencement in academic caps and gowns.



## PUBLIC WORSHIP.

Brief devotional exercises are held in the Hall of the University on every week day except Saturday, at 9 o'clock a. m. All students are invited to attend these services.

## LIBRARY FACILITIES.

A well-equipped reference library and reading-room is open to students from 9.30 a. m. to 10 p. m. It contains encyclopædias, dictionaries, standard works in the various departments of study comprised under University Subjects, and the leading literary and scientific magazines and reviews. Valuable accessions have recently been made, largely through the liberality of the Columbian Women, and new books are constantly being added. The Librarian is in attendance to give help in any line of reading or research, and to refer the student to the larger libraries of the city best adapted to his purpose.

The great Library of Congress—the largest in the country—is steadily perfecting its collections of standard works in the various branches of university study, and advanced and graduate students are there given every facility for pursuing their investigations. The Public Library of the District of Columbia is being rapidly equipped with books of especial importance to students, and its facilities are available under the most favorable conditions. Under certain restrictions, the libraries of the governmental departments may also be utilized. All these libraries are within easy reach of the University.

MECHANICAL AND ELECTRICAL ENGINEERING  
LABORATORY.

The Mechanical Engineering department is provided with a valuable collection of machine parts, illustrating the best modern practice, such as shaft-hangers, pedestals, valves, jacks, friction clutches, &c.

Arrangements are being made to provide the necessary additional testing machines and instruments to give a laboratory course in engineering practice. The lighting and heating plant now installed in University Hall forms an excellent basis for such work.

A 25 K. W. direct-current Westinghouse dynamo, directly connected to a Westinghouse gas engine of the latest type, has been installed. The dynamo was specially constructed to adapt

it to experimental requirements, generating both direct and polyphase alternating currents. The surplus power of the Westinghouse gas engine is utilized in driving smaller dynamos of various types for testing purposes.

The engine is one of the latest and most improved types of gas engines, being a two-cylinder single-acting engine, giving an explosion every revolution, and an exceptionally close regulation. Provision is made for testing the efficiency of each machine independently, or the combined unit under a great variety of conditions.

In addition to the above, an experimental electrolytic refining plant has been installed, current for which is furnished by a Crocker & Wheeler motor dynamo, giving 150 amperes at 6 volts. Special investigations in electrometallurgy are in contemplation.

The laboratory is equipped with direct and alternating current generators and motors for experimental purposes, and with the necessary measuring apparatus, direct and alternating current ammeters and voltmeters, galvanometers, standard resistances, standard cells, etc.

#### DAVIS PRIZE SPEAKING.

The Davis Prize Speaking is held in University Hall on the Wednesday after the Easter holidays. The Davis Prizes were founded by Hon. Isaac Davis, of Massachusetts, in 1847. The original endowment was five hundred dollars, "proceeds of which will afford three premiums, in cash or gold medals, of the value of \$5, of \$10, and of \$15 annually. These premiums or prizes to be distributed annually to such members of the senior class as shall have made the greatest progress in elocution since their connection with the College."

The award of these three prizes is determined by a public speaking contest, in which the participants deliver original orations. Senior students wishing to enter the competition should report to the Head Professor of English not later than five weeks before the contest, and submit their orations not later than three weeks before the contest. The prizes are awarded by a committee consisting of three members, selected by the President's Council.

#### ENOSINIAN SOCIETY.

The Enosinian Society, a literary association formed by the students of the Department of Arts and Sciences, meets weekly for the purpose of improvement in Debate and Composition.

This Society had its beginning on March 6, 1822, during the first session of Columbian College, when a number of students held a meeting "for the purpose of establishing a debating society." Two Enosinian prizes are given annually and are publicly delivered at the Commencement:

**DEBATERS' PRIZE.**—A gold medal given by the Society for proficiency in debate. This prize was awarded in 1902-03 to Herbert James Bryson.

**GORE PRIZE IN PARLIAMENTARY LAW.**—A gold medal given by Prof. James Howard Gore for proficiency in parliamentary law. This prize was awarded in 1902-03 to Levi Russell Alden.

#### HONORABLE DISMISSION.

An honorable dismission will always be granted to any student in good standing who may desire to withdraw from the University.

Students proposing to withdraw will notify the Registrar to that effect in writing. In the absence of such notification no claims for exemption from fees will be allowed.

#### ROOMS AND BOARD.

Desirable rooms, convenient to the University buildings, and good board, are obtainable at moderate prices. A list of eligible boarding-houses will, upon request, be furnished by the Registrar of the University.

#### FEES.

1. All students entering the Department of Arts and Sciences, except Auditors, are charged a matriculation fee of ten dollars.

2. Over twelve hours per week, \$100 per annum.

3. Twelve hours per week and under, \$7.50 per hour, except that in the last year for the Bachelor's degree the full tuition of \$100 is charged. The minimum fee is fixed at \$15 per annum.

**NOTE.**—(a) The tuition fee is determined by the number of hours taken at entrance. (b) No deduction for changes will thereafter be made except at the end of the term. (c) Two hours of laboratory work count as one hour.



4. For courses leading to the Master's degrees and degrees in Engineering, \$100.

5. For courses leading to the degree of Doctor of Philosophy taken by students having the Master's degree or its equivalent, \$200.

6. All students receiving a degree are charged the graduating fee of ten dollars.

Students taking laboratory courses are charged additional laboratory fees as follows:

Laboratory fee per annum—Chemistry—courses 2 or 3 . . . . .	\$10 00
Laboratory fee per annum, for all other laboratory courses in Chemistry . . . . .	25 00
Deposit (returnable) for breakage in all laboratory courses in Chemistry except 2 and 3 . . . . .	25 00
Laboratory fee, assaying of ores and bullion . . . . .	40 00
Materials used, assaying of ores and bullion . . . . .	20 00
Laboratory fee per annum, Physics . . . . .	10 00
" " " Electricity . . . . .	10 00
" " " Botany . . . . .	10 00
" " " Zoölogy . . . . .	10 00
" " " Mineralogy . . . . .	10 00

In addition to the above laboratory fees, students are charged for breakage.

Students taking courses in other departments of the University in which there is a higher fee will be charged the higher fee.

All tuition fees are payable semi-annually, in advance.

#### LOCATION.

The main building of the University is situated at the corner of Fifteenth and H streets N. W.

For further information in regard to the Department of Arts and Sciences inquiries may be addressed to—

CHANNING RUDD, *Registrar,*  
*The Columbian University,*  
*Washington, D. C.*

## UNDERGRADUATE STUDENTS.

*Bachelor of Arts.*

Name.	Legal address.	City address.
L. Russell Alden.....	D. C....	809 L Street.
Gladys Ames.....	D. C....	1701 21st Street.
Clara Velma Barber.....	D. C....	703 E. Capitol Street.
Stella M. Barbour.....	D. C....	1327 12th St., N. E.
James Barr.....	Wis....	227 N. J. Ave., S. E.
Norman E. Bliss.....	D. C....	1923 15th Street.
Herbert James Bryson.....	Pa.....	714 12th Street, N. E.
Annie Swift Buckelew.....	N. Y....	1603 30th Street.
Ada Bell Burgdorf.....	D. C....	512 6th Street.
Lydia Aurelia Cobb.....	Pa.....	641 B Street, N. E.
Augusta Moulton De Forest.....	Kans....	1222 B Street, N. E.
Mary Sumner Fieldhouse.....	D. C....	Cleveland Park.
Ethel L. Gallagher.....	D. C....	1146 N. Cap. Street.
Edith M. Giles.....	D. C....	1817 Belmont Ave.
Charles F. Hatch.....	D. C....	406 Spruce Street.
Raymond F. Kirkman.....	Ill....	1545 I Street.
James Ervin Lamb.....	Md....	1322 I Street.
Catherine Agatha McAvoy.....	D. C....	1917 17th Street.
Catherine V. McIlhenny.....	D. C....	2114 Conn. Ave.
Maud Esther McPherson.....	D. C....	1250 Princeton St.
Emilie W. McVea.....	N. C....	3132 P Street.
Ella Arvilla Merritt.....	Minn...	154 F Street, S. E.
George Elmer O'Bryon.....	N. Y....	1813 F Street.
Van Albert Potter.....	N. C....	219 C Street, N. E.
Nina Louise Raymond.....	Pa.....	647 B Street, N. E.
M. Genevieve Showalter.....	Pa....	1523 N. H. Ave.
Walter Gordon Slappey.....	Ga....	1453 Mass. Ave.
Louise Jane Smith.....	D. C....	513 B Street, N. E.
William Webb Sniffin.....	D. C....	312 N. C. Ave., S. E.
John R. Sperry.....	D. C....	1358 Yale Street.
Jay Urban Stair.....	Wis....	1251 M Street, N. E.
Clella Lucile Stevens.....	Pa.....	641 B Street, N. E.
Shepard Strong.....	N. H....	1539 I Street.
Florence Eugenia Suit.....	Md....	429 Mass. Ave.
Charles Leroy Swindell.....	N. C....	219 C Street, N. E.
Adele Ria Taylor.....	D. C....	2705 P Street.
Rhoda Watkins.....	Pa....	1412 14th Street.
Wm. Kemper West.....	D. C....	1831 Oregon Ave.
Clarence Willard Whitmore.....	D. C....	807 1st Street.
Ruth Bell Young.....	Va.....	Ballston, Va.

*Bachelor of Science.*

Name.	Legal address.	City address.
Arthur Bertram Adams.....	Md.....	Treasury Dept.
Frederick Wilhelm Albert.....	Pa.....	2307 32d Street.
Nila F. Allen.....	Ind.....	323 Md. Ave., N. E.
Alexander K. Anderson.....	D. C.....	Kenova Flats.
Arthur Wilbur Bache.....	D. C.....	1225 11th Street.
Burton H. Barndollar.....	Ill.....	1327 N Street.
Thos. A. Bartley.....	Md.....	1912 15th Street.
Carroll Beale.....	D. C.....	3132 P Street.
Clay Gordon Bellinger.....	D. C.....	400 Ninth St. N. E.
Walter J. Bennett.....	D. C.....	1248 Princeton St.
Harry Luther Boesch.....	D. C.....	616 E Street, N. E.
Ralph McLean Bowman.....	Ind.....	1115 Harvard Street.
William Alexander Boyd.....	N. C.....	1325 H Street.
Henry Bradshaw.....	D. C.....	901 C Street, N. E.
Ellen K. Brandenburg.....	D. C.....	915 French Street.
Robert Alan Brannigan.....	D. C.....	1481 Columbia Road.
James A. Brearley.....	Pa.....	306 10th Street, S. E.
John Fouché Brownlow.....	D. C.....	2010 15th Street.
Frederick James Brunner.....	Pa.....	1518 Columbia St.
Wm. Webster Burrell.....	Pa.....	417 Mass. Avenue.
Alvin Todd Burrows.....	Iowa.....	1718 Corcoran St.
Adah Levis Burt.....	D. C.....	2126 Pa. Avenue.
John R. Cain.....	Ohio.....	327 2d Street, N. E.
Andrew H. Carrico.....	Ky.....	1341 L Street.
James Douglas Cleary.....	D. C.....	612 22d Street.
Mary B. Cole.....	D. C.....	917 16th Street.
Harry Ludwig Colestock.....	D. C.....	937 Mass. Avenue.
Harry Ellis Collins.....	D. C.....	44 C Street, N. E.
Frederick Austin Coolidge.....	D. C.....	The Plaza.
Howard D. Crocker.....	Va.....	Ballston, Va.
James Eugene Curtis.....	D. C.....	1011 K Street.
Edward Mathews Dawson, Jr.....	D. C.....	1752 S Street.
Edwin Vivian Dunstan.....	Va.....	300 Mass. Ave., N. E.
Ralph Earnest.....	D. C.....	1502 Caroline Street.
Clair W. Fairbank.....	Minn.....	3007 15th Street.
Wm. Frederick Faustman.....	N. Y.....	Dept. of Labor.
Aloysius S. Fennell.....	D. C.....	814 First Street.
James Gordon Finley.....	D. C.....	1134 19th Street.
Louis Albert Fischer.....	D. C.....	923 Mass. Avenue.
Ward Wm. Fleharty.....	D. C.....	121 Fifth St., N. E.
Thomas Fleming, Jr.....	D. C.....	1763 Madison Street.
W. H. Irwin Fleming.....	D. C.....	1763 Madison Street.
John Ford.....	D. C.....	312 2d Street, S. E.



Name.	Legal address.	City address.
John Koch Frederici .....	Pa. ....	1112 13th Street.
Horace M. Fulton.....	D. C. ....	1211 Vermont Ave.
Stuart John Gass.....	D. C. ....	3425 Brightwood Av.
José F. Godoy, Jr. ....	Mexico..	1700 15th Street.
John Blake Gordon.....	D. C. ....	6 Cooke Place.
Edward Charlton Graves.....	D. C. ....	927 Mass. Ave.
Sheldon Heber Graves.....	D. C. ....	1221 K Street.
Charles Nichols Gregory.....	D. C. ....	302 C Street.
Thos. R. Gwinn.....	Md. ....	1225 Conn Avenue.
George Foster Harley .....	Ga. ....	46 New York Ave.
John Francis Harn.....	Tex. ....	606 22d Street.
Morris K. Harralson.....	Ga. ....	1336 I Street.
Katie Harrington.....	D. C. ....	Conduit Road.
Harry Carter Hartley.....	Ill. ....	1713 G Street.
Frank Schley Hemmick.....	Md. ....	1819 F Street.
Hugh Stewart Hill.....	Wy. ....	1815 11th Street, N. E.
Albert Holle Homrighaus.*.....	D. C. ....	1242 5th Street.
Harlan Verne Honn.....	D. C. ....	1118 12th St., N. E.
Frank A. Hornaday.....	Tex. ....	74 T Street.
Harry Wilson Houghton .....	Md. ....	Glen Echo, Md.
Frank Scott Howell.....	N. Y. ....	606 22d Street.
R. Wardlaw Huck .....	D. C. ....	907 19th Street.
Henry E. Hughes.....	D. C. ....	315 B Street, N. E.
William G. Hughes.....	D. C. ....	1416 Kenesaw Ave.
Benson Mundy Jewell .....	Ill. ....	320 8th Street, N. E.
Hattie A. Johnson.....	Md. ....	312 C Street.
Isaac Kahn.....	La. ....	926 23d Street.
Silas V. Kemp.....	Md. ....	15 3d Street, N. E.
George Ellis Kirk.....	Ohio ...	Patent Office.
Alfred Leon Kleberg .....	Tex. ....	8 B Street, N. E.
Wm. Henry Lawton.....	D. C. ....	2024 H Street.
Wilmer Ross Spear Leech .....	Md. ....	2302 1st Street.
Robert B. Little .....	Ohio ...	103 11th Street, S. E.
Frederick Theodore Livings.....	Ind. ....	718 3d Street, N. E.
John Arthur Long.....	D. C. ....	219 3d Street.
Stephen Thomas Lorando.....	D. C. ....	3038 Cambridge Place
Henry Francis Lowe.....	Va. ....	605 Mass. Ave., N. E.
Freeland Chew Lyman.....	D. C. ....	1710 Q Street.
Christian Arthur Manning.....	Pa. ....	18 2d Street, N. E.
James M. Matthews, Jr. ....	D. C. ....	1109 17th Street.
Wallace Edward Mattingly.....	D. C. ....	708 N. C. Ave., S. E.
Henry W. Maynard.....	D. C. ....	1407 15th Street.
John J. McCabe.....	D. C. ....	214 T Street.
Max McCullough.....	D. C. ....	406 11th Street, N. E.
Otis Little McIntyre.....	D. C. ....	318 C Street.

Name.	Legal address.	City address.
Margaret A. McMahon.....	D. C....	1402 10th Street.
Eugene Meads.....	D. C....	101 4th Street, N. E.
Maude Meigs.....	D. C....	325 2d Street, S. E.
James Patrick Mewshaw.....	Md.....	901 M Street.
Herbert W. Meyers.....	Md.....	216 A Street, S. E.
Frank Tremain Miller.....	D. C....	Navy Yard.
Elonzo Tell Morgan.....	W. Va..	1022 8th Street.
Alvin Leroy Newmyer.....	D. C....	Prince Karl.
Richard P. O'Neill.....	D. C....	11 L Street, N. E.
Raymond Outwater.....	D. C....	1312 B Street, S. W.
Frederick Dennison Owen.....	Conn...	3 Grant Place.
Samuel Bernard Pack.....	Pa.....	The Orme.
William C. Palmer.....	D. C....	Dept. of Agriculture.
Charles Erven Parsons.....	Md....	Forest Glen, Md.
George W. Parsons.....	Mich....	306 E Street.
Elizabeth Peet.....	D. C....	Kendall Green, D. C.
Adon D. Phillips.....	N. Y....	1712 F Street.
Will Thomas Pierson, Jr.....	Fla....	315 5th Street, N. E.
Irene Mabel Pistorio.....	D. C....	2142 G Street.
Walter I. Plant.....	D. C....	231 H Street, N. E.
Harold Wallace Porch.....	N. J....	322 A Street, S. E.
Irving Dalton Porter.....	D. C....	1841 12th Street.
George Virgil Rector.....	Va.....	515 6th Street.
Harry Day Reed.....	Ga.....	Treasury Dept.
Joseph Sebastian Repetti.....	D. C....	149 B Street, S. E.
R. Paul Repetti.....	D. C....	317 Pa. Ave., S. E.
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Edward Elliott Richardson.....	D. C....	400 7th Street, S. W.
M. D., Columbia University.		
Francis Olin Richey.....	Va.....	Southern R. R.
Harrison Heath Riddleberger.....	Va.....	1374 Harvard Street.
Charles Wilson Rippey.....	N. Y....	231 12th Street, N. E.
George Marshall Saegmüller.....	Va.....	134 Md. Ave., S. W.
Charles William Seltzer.....	Pa.....	640 E Street, N. E.
William Stokes Sheets.....	D. C....	2239 13th Street.
Caroline Baldwin Sherman.....	Va.....	1423 8th Street.
John Brognard Shinn, Jr.....	D. C....	1751 Madison Street.
Delos Hamilton Smith.....	D. C....	112 C Street.
Edwin Smith, Jr.....	Md.....	Rockville, Md.
Forrest Grant Smith.....	Va.....	614 A Street, N. E.
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Laurence Scott Smith.....	N. H....	525 T Street.
Lloyd Lyman Smith.....	S. Dak..	Nat'l Bureau of Stds.
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Robert Francis Storm.....	D. C. ....	1549 Columbia Street.
Charles Rountree Sugg.....	N. C. ....	241 N. Capitol Street.
W. Frank Summy.....	D. C. ....	1228 S Street.
Otis Dow Swett.....	Ill. ....	1334 G Street.
LL. B., LL. M., Columbian University.		
Will Chester Thom.....	D. C. ....	706 N. C. Ave.
Edward Thomas Thompson.....	Iowa....	143 N. C. Ave., S. E.
F. Beale Thompson.....	D. C. ....	741 7th Street S. E.
J. C. Vaughan Todd.....	Ky.....	1706 10th Street.
George Leaming Townsend.....	N. J. ....	917 16th Street.
Emma M. V. Triepel.....	N. C. ....	2118 G Street.
Fred William Turnbull.....	Wis ....	2017 H Street.
Raymond Henry Van Nest.....	D. C. ....	1420 15th Street.
Edna Wallach.....	Md. ....	1014 Mass. Ave.
Harry Joseph Warthen.....	D. C. ....	3524 Morgan Ave.
Gustav William Wiegand.....	Minn....	900 K Street.
H. Blake Wood.....	Ind ....	231 R Street, N. E.
Mark Rittenhouse Woodward.....	D. C. ....	125 N. Y. Ave.
G. Earle Yancey.....	Fla. ....	Navy Department.
Aaron B. Zahn.....	Colo....	1903 G Street.

*Special Students.*

Herbert Luther Adams.....	Mass....	816 L Street, S. E.
George Price Alderson.....	Tex ....	1204 O Street.
Mary Ellen Allen.....	D. C. ....	314 H Street, N. E.
Mary Ann Ancona.....	D. C. ....	2224 F Street.
Robert Bruce Atkinson.....	D. C. ....	940 French Street.
Susan Louise Balentine.....	Ohio ....	1814 M Street.
Abby Louise Barney.....	Mich....	28 9th Street, S. E.
Zenus F. Barnum.....	Md. ....	816 15th Street.
Mrs. Augusta K. Bashford.....	R. I. ....	1430 V Street.
Henry E. Baum.....	D. C. ....	712 B Street, S. W.
Helen Margretta Beale.....	D. C. ....	1820 Kalorama Ave.
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George Eli Belisle.....	Mass....	823 13th Street.
Hannah Berliner.....	D. C. ....	1717 P Street.
Albert Edgar Berry.....	D. C. ....	3058 U Street.
Lydia Hortense Block.....	D. C. ....	145 11th Street, N. E.
Ruth E. Bogley.....	D. C. ....	1507 28th Street.
Fred W. Bonitz.....	D. C. ....	1227 10th Street.
Talley John Bouknight.....	Ala. ....	1921 G Street.
Lewis Thurston Boynton.....	D. C. ....	1119 B Street, N. E.
Lester V. Branch.....	N. Y. ....	Predonia Hotel.
Mary Cecilia Breen.....	D. C. ....	1357 U Street.



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Kinsey Brewer.....	D. C....	229 12th Street S. W.
Clifford H. Brown.....	D. C....	Petworth, D. C.
Cornelia M. Brown.....	Mass....	3566 13th Street.
Grant B. Bruce.....	N. Y....	911 H Street.
Mrs. Alice Morse Buck.....	Colo....	502 B Street, N. E.
Clare William Burket.....	Pa.....	1335 15th Street.
Nelle Kathryn Burt.....	Pa.....	1014 D Street, N. E.
Emma Helen Bushnell.....	D. C....	321 Florida Avenue.
George Alvarez Calderon.....	Peru....	1701 Mass. Avenue.
Oswald E. Camp.....	D. C....	2003 Kalorama Ave.
John C. Casady.....	D. C....	217 N. Capitol Street
Seward Charles.....	Ill.....	1203 O Street.
Walter Beaumont Clarkson.....	Va.....	619 14th Street.
Annabel Clifton.....	D. C....	937 Mass. Avenue.
Louis Cohen.....	Wis....	702 19th Street.
William Wolfe Cohen.....	D. C....	601 G Street, S. W.
Marie Louise Collier.....	D. C....	1756 Oregon Ave.
Mary A. Connolly.....	Vt.....	3566 13th Street.
Harry Coope.....	Ohio....	706 11th Street.
Sherman Montrose Craiger.....	Md.....	The Oxford.
Christine Dale.....	Ark....	1740 Q Street.
Elizabeth Mary Dawes.....	D. C....	316 M Street.
Marietta G. Deehan.....	Me.....	1340 T Street.
Robert Emmet Degnan.....	N. Y....	610 K Street, N. E.
Samuel B. Detwiler.....	Pa.....	259 N Street.
Olive V. P. Dodge.....	D. C....	111 1st Street, N. E.
Charles H. Doing, Jr.....	D. C....	607 4th Street.
Margaret Doonan.....	Ohio....	323 F Street, N. E.
Harold Taylor Dougherty.....	Mass....	1337 Vermont Ave.
Elizabeth Downing.....	D. C....	459 Florida Ave.
Estella C. Drane.....	D. C....	419 Mass. Ave.
Adelbert Dryer.....	Mich....	1312 Md. Ave., N. E.
Charles Edward Duffey.....	Va.....	Alexandria, Va.
Elizabeth A. DuHamel.....	D. C....	1839 16th Street.
August Eccard.....	D. C....	1230 N. H. Ave.
Elizabeth Emory.....	D. C....	2123 F Street.
John W. Farley.....	Tenn....	1931 K Street.
George Aloysius Ferry.....	D. C....	1200 N Street.
Rebecca Sewall Fisher.....	D. C....	38 I Street, N. E.
Paul Fitz Patrick.....	Minn....	1431 Welling Place.
Frank Dexter Fletcher.....	N. Y....	1324 Q Street.
Ruth Evelyn Fletcher.....	D. C....	1111 4th Street.
Louis Alfred Foster.....	N. Y....	1381 F Street, N. E.
Hubert Bruce Fuller.....	Conn....	1615 Florida Ave.
Kate Forrest Gary.....	D. C....	Blair Road, D. C.

Name.	Legal address.	City address.
Berkely Willard Geyer	D. C. . . .	1347 L Street.
Hermann F. Gloetzner	D. C. . . .	1228 M Street.
Geneva Wise Gordon	D. C. . . .	1514 13th Street.
Charles H. Gray	Nebr. . . .	712 12th Street.
Edith C. Gray	D. C. . . .	923 I Street.
Powell F. Gray	Mo . . . .	617 H Street.
Bertram LeRoy Grimes	D. C. . . .	651 G Street, S. E.
Myrtle N. Halterman	Ohio . . . .	512 Spruce Street.
Carl Spaul Harbaugh	D. C. . . .	901 M Street.
Lulu E. Haukness	Minn. . . .	The Stanton.
Thomas C. Havell	Tenn. . . .	1235 B Street, S. E.
Emma P. Heald	Me. . . .	114 13th Street, N. E.
William Archibald Hedrick	N. C. . . .	3321 N Street.
Frances Heilprin	D. C. . . .	926 B Street, S. W.
William Heine	D. C. . . .	Brightwood Ave.
Geraldine Herman	D. C. . . .	324 4½ Street, S. W.
Hallie Herriott	D. C. . . .	1842 15th Street.
Amy Belle Hill	Pa. . . .	1213 R. I. Ave.
C. R. Hillyer	Fla. . . .	116 B Street, N. E.
Julius A. Hobson	Md. . . .	Care of Woodward & Lothrop.
Mary Lelia Hoge	Va. . . .	1909 14th Street.
Fong Hoh	China. . . .	1316 13th Street.
Frank Reginald Hollingshead	Pa. . . .	634 E Street, N. E.
George Buell Hollister	N. J. . . .	1827 I Street.
Charles Henry Holmead, Jr.	D. C. . . .	1750 P Street.
S. F. Holtzman	N. Y. . . .	1007 L Street.
Edwin Butcher Hopkins	W. Va. . . .	The Portner.
Roy Samuel Hopkins	W. Va. . . .	The Portner.
Prevost Hubbard	D. C. . . .	1804 17th Street.
Hubert Percy Illman	D. C. . . .	1528 10th Street.
Susie Young Jewett	Ga. . . .	101 N. C. Avenue.
Lacey Stuart Johnston	D. C. . . .	The Portner.
Clyde W. Kelly	Minn. . . .	1637 13th Street.
J. Joseph Kennelly	D. C. . . .	45 H Street.
Samuel Thomas Klawans	D. C. . . .	818 H Street, N. E.
Grace Farnum Knight	Md. . . .	911 13th Street.
Katherine Koetz	Pa. . . .	919 I Street.
Elizabeth Kyne	N. Y. . . .	1209 K Street.
Dorothy Lamon	D. C. . . .	1120 Vermont Ave.
Johannes Cranstown Laurie	D. C. . . .	1317 11th Street.
Walter H. Lee	D. C. . . .	Anacostia, D. C.
Agnes I. Little	D. C. . . .	710 A Street, N. E.
Daniel Joseph Lix	D. C. . . .	1810 K Street.
John D. Locke	N. H. . . .	The Normandie.

Name.	Legal address.	City address.
Charles Russell Lombard	Me . . . .	1530 10th Street.
Alejandro Lomondo	Arg. Rep	1527 N. H. Avenue.
W. Don Lundy	D. C . . .	808 N. C. Ave., S. E.
Julia Macmillan	D. C . . .	600 Md. Ave., N. E.
Edward L. Maenche	Mich . . .	St. Elizabeth's.
James Mason Manghum	D. C . . .	1208½ N Street.
David Farquhar Mann	D. C . . .	220 A Street, S. E.
Rutherford Brawdus Martin	D. C . . .	Gov. Hosp. for Insane
Carlos Alfonso Martinez	Mexico..	1445 Mass. Avenue.
Marion E. McCoy	D. C . . .	1014 D Street.
Donald H. McLean	N. J . . .	508 A Street, N. E.
Walter Houx Meglasson	Wis . . . .	1903 G Street.
Kathleen C. Mercer	Va . . . .	122 E. Capitol St.
Marion A. Miller	D. C . . .	1234 Mass. Avenue.
Masuji Miyakawa	Japan . .	1224 N. Y Avenue.
Adele Moody	D. C . . .	1512 P Street.
Felix Tait Moore	Ala . . . .	15 Grant Place.
Herbert R. Morgan	D. C . . .	Naval Observatory.
Rev. Charles C. Morhart	Ohio . . .	228 Morgan Street.
Claude Frank Morris	Mo . . . .	Alexandria, Va.
Ella J. Morrison	D. C . . .	11 R Street, N. E.
Donald Cassius Muhleman	D. C . . .	1512 H Street.
Roberta Nicholls	D. C . . .	1924 H Street.
Charles Carroll Nixon	Ohio . . .	Patent Office.
Sarah E. Osgood	Mass . . .	710 3d Street, S. E.
Cora Amelia Ossire	D. C . . .	2721 P Street.
Andrew Parker	D. C . . .	1738 Conn. Ave.
John Peabody	D. C . . .	725 13th Street, S. E.
Netta Christine Peterson	Minn . . .	The Elsmere.
A. May Priest	Pa . . . .	259 N Street.
Charles Montcalm Putnam	D. C . . .	47 Franklin Street.
Mrs. Giles S. Rafter	D. C . . .	1122 N. H. Ave.
Ella B. Ratcliffe	D. C . . .	1844 13th Street.
Alberta Morgan Reeves	D. C . . .	804 N. C. Ave., S. E.
Lottie Reinke	Tex . . . .	2 Iowa Circle.
Edith Hieskell Ridout	D. C . . .	1748 N Street.
Ethel Vernon Rollins	Va . . . .	Falls Church, Va.
Luella B. Rudolph	Kans . . .	816 15th Street.
Casper Otto Ruedy	Va . . . .	121 Mass. Ave., N. E.
Alice M. Ruff	D. C . . .	1004 M Street.
Thomas Joyes Ryland	Ky . . . .	1328 N. Y. Ave.
Edward R. Saalbach	Colo . . .	306 4th Street, S. E.
Margaret R. Sammons	D. C . . .	1851 Mintwood Pl.
Frances Sanders	D. C . . .	629 S Street.

B. S., Columbian University.



Name.	Legal address.	City address.
William B. Schulz.....	Va.....	228 Morgan Street.
O. Allen Shafer.....	D. C.....	215 4th Street, S. E.
James E. Shepherd.....	Ind.....	Winder Building.
Eugene Mower Sliney.....	D. C.....	1901 Vermont Ave.
Irene Alden Smith.....	N. C.....	311 C Street.
Emanuel Speich.....	Nebr.....	918 S Street.
Harold Brooke Stabler.....	Md.....	1321 G Street
Pauline Stevenson.....	D. C.....	111 1st Street, N. E.
Margaret May Stockbridge.....	Va.....	938 Westminster St.
Lula Bye Stovall.....	Mo.....	716 7th Street.
Roger M. Stuart.....	D. C.....	7 Dupont Circle.
W. G. Harrison Stump.....	D. C.....	The Cumberland.
Francis P. Sullivan.....	D. C.....	1530 9th Street.
James J. Sullivan.....	N. Y.....	327 A Street, S. E.
Haskell Burlason Talley.....	Tenn.....	1931 K Street.
Earl Lee Tatum.....	N. C.....	802 11th Street.
Mary Watson Taylor.....	Va.....	1828 S Street.
Louise Templeton.....	D. C.....	533 5th Street, N. E.
Howard W. Thayer.....	D. C.....	The Montgomery.
Amy Greer Thompson.....	D. C.....	1718 Oregon Ave.
Edward C. Thompson.....	Iowa.....	1641 13th Street.
B. S., M. E., Columbian University.		
Mabel C. Thompson.....	Va.....	741 7th Street, S. E.
Marian Thorwarth.....	Minn.....	The Cumberland.
Lucy M. Tiddy.....	N. C.....	917 15th Street.
Ruth Hall Todd.....	D. C.....	The Cumberland.
William Edward Todd, Jr.....	D. C.....	129 A Street, N. E.
Rafael Joaquin Torralbas.....	Cuba.....	1817 K Street.
Gabriel Tudela.....	Peru.....	1701 Mass. Ave.
John Vorkoeper.....	Wis.....	1921 G Street.
Edna Renard Voss.....	D. C.....	1930 17th Street.
Will R. Warman.....	D. C.....	3345 16th Street.
Andrew Parker Warner.....	D. C.....	2100 Mass. Ave.
Mabel Claire Webb.....	Mich.....	310 D Street, N. E.
George G. Webster.....	D. C.....	Brightwood, D. C.
May Weide.....	D. C.....	502 East Capitol St.
Georgia Eliza Wharton.....	Md.....	Bethesda, Md.
Paul C. Whitney.....	D. C.....	1517 Columbia Street.
Abe Wiesner.....	Ohio.....	1427 I Street.
Mack Williams.....	Iowa.....	242 Del. Ave., N. E.
Edwin Percival Wilson.....	D. C.....	1406 21st Street.
Hazel Bradford Witten.....	Mo.....	1901 5th Street.
Oscar W. Wyatt.....		

# DEPARTMENT OF ARTS AND SCIENCES.

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## Auditors.

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Pepita Larroque.....	Uruguay 1729 21st Street.	
A. Gertrude Loftus.....	Mass.... 1701 21st Street.	
Grace A. Needham.....	D. C.... 1833 Jefferson Place.	
Mrs. B. J. Ramage.....	Sewanee, Tenn.	
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## GRADUATE STUDENTS.

### Civil Engineer.

Name.	Legal address.	City address.
Arthur Waters Calver.....	D. C.... 1721 P Street.	
B. S., 1901, Columbian University.		
Guillermo Gustavo Fischer .....	Cuba....	Columbian Univ.
A. B., 1898, B. S., 1898, Havana University.		
Earl Gordon Marsh .....	Ohio ...	628 E St., N. E.
B. S., 1902, Columbian University.		
José Vañó Reyes .....	Phil. I's.	201 E. Cap. Street.
B. A., 1890, University of St. Tomas de Manila.		
Charles Real Olberg.....	Minn ...	1919 13th Street.
B. S., 1900, Columbian University.		

### Mechanical Engineer.

John Cleary Blandford.....	Md ....	College Park, Md.
M. E., 1899, Maryland Agricultural College.		
Jesse Edgar Holliger.....	Ind.....	1808 H Street.
B. S., 1899, Rose Polytechnic Institute.		
Edward Adams Muir.....	Pa.....	Ord. Office, Navy Y'd.
B. S., 1897, Columbian University.		

### Electrical Engineer.

Isaac Allison .....	D. C....	Kendall Green.
B. S., 1902, Columbian University.		
Philander Betts .....	N. Y....	The Plaza.
B. S., 1891, M. S., 1895, Rutgers College.		
Wilhelm Oswaldt Hugo Sauer .....	Germany.	1403 G Street, S. E.
S. B., 1902, Catholic University of America.		

### Master of Science.

Ray Smith Bassler .....	Ohio ...	U. S. Nat'l Museum.
B. A., 1902, University of Cincinnati.		
Topic, Geology.		

Name.	Legal address.	City address.
Harry Wallace Bowen.....	Mass....	U. S. Patent Office.
B. S., 1893, Worcester Polytechnic Institute.		
Topic, Electricity.		
Horace Seeley Brown.....	Pa.....	2102 H Street.
B. S., 1899, Lafayette College.		
Topics, Biochemistry, Bacteriology, Botany.		
Frank Clifton Daniels.....	D. C....	40 R Street, N. E.
B. S., 1901, Dickinson College.		
Topic, Chemistry.		
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B. Lit., 1898, Furman University.		
B. S., 1901, Columbia University.		
Topic, Physics.		
Henry Nelson Lansdale.....	Md....	College Park, Md.
B. S., 1902, Maryland Agricultural College.		
Topic, Organic Chemistry.		
Leroy Mahler Law.....	D. C....	310 9th Street, N. E.
B. S., 1902, Columbia University.		
Topic, Chemistry.		
Joseph Woodward Milburn..	Pa..	812 20th Street.
B. S., 1902, Dickinson College.		
Topic, Chemistry.		
William Charles Palmer.....	Minn...	Dep't of Agriculture.
B. S., 1900, University of Minnesota.		
Topic, Botany.		
Luther Adolph Richards.....	Va.....	1100 N. Y. Ave.
B. A., 1902, Columbia University.		
Topic, Applied Mathematics.		
Bernard Howard Smith.....	Mass....	1741 N. J. Ave.
B. S., 1899, Massachusetts Agricultural College.		
B. S., 1899, Boston University.		
Topic, Agricultural Chemistry.		
Herbert Louis Solyom....	Md.....	Room 248, U. S. Patent Office.
B. S., 1902, Columbia University.		
Topic, Solar Physics.		
Herman Stabler.....	Md.....	1341 Wallach Place.
B. S., 1899, Earlham College.		
Topic, Hydraulic Engineering.		
Edgar Derry Tillyer.....	N. J.	U. S. Naval Observatory.
B. S., 1902, Rutgers College.		
Topic, Pure Mathematics.		
John Cleveland Welsh.....	Tenn...	Room 313, P.O. Dep't.
B. S., 1887, Carson and Newman College.		
Topic, Physics.		

*Master of Arts.*

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B. A., 1897, Columbia University.		
Topic, American History.		



## DEPARTMENT OF ARTS AND SCIENCES.

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Name.	Legal address.	City address.
Leroy Stafford Boyd	La.....	Library of Congress.
B. S., 1892, M. S., 1895, Alabama Polytechnic Institute.		
LL. B., 1899, Tulane University.		
D. C. L., 1901, M. Dip., 1902, Columbia University.		
Topic, American History.		
Ida May Cooley	N. Y. . .	168 Maple Avenue.
Ph. B., 1891, Syracuse University.		
Topic, Latin.		
Lucy Webster Cummings	D. C. . .	Howard University.
B. A., 1897, Wellesley College.		
Topic, Germanic Literature.		
Franklin Davis	Va. . . .	Seminary, Va.
A. B., 1900, Hampden-Sidney College.		
Topic, Biblical Literature.		
Harry Tennyson Domer	D. C. . .	916 F Street.
B. A., 1900, Columbia University.		
Topic, American History.		
Henry Herbert Dyke	Ill. . . .	U. S. Patent Office.
A. B., 1899, Marietta College.		
Topic, Pure Mathematics.		
Rev. John Dysart	Ky. . . .	Mt. St. Albans, D. C.
B. S., 1892, Monmouth College.		
Topic, Ancient and Church History.		
Donald Eversfeld	Md. . . .	College Park, Md.
B. A., 1896, Maryland Agricultural College.		
LL. B., 1898, Columbia University.		
Topic, Economics.		
Arthur Cary Fleshman	Ind. . . .	117 7th Street, N. E.
B. S., 1884, M. S., 1892, National Normal University.		
Topic, Philosophy.		
James Edgar Hiatt	Md. . . .	813 3d Street.
B. S., 1899, Columbia University.		
Topic, Spanish.		
Frank H. Hitchcock	Mass . .	Dep't of Commerce.
A. B., 1891, Harvard University.		
LL. B., 1894, LL. M., 1895, Columbia University.		
Topic, Patent Law.		
Laurence Aquila Janney	D. C. . .	1671 31st Street
Topic, Economics.		
James David Jaquette	Del. . . .	Rockville, Md.
B. S., 1889, Delaware College.		
Topic, Continental History.		
Helen Powers Manning	D. C. . .	218 N. J. Avenue.
B. L., 1902, Smith College.		
Topic, English.		

Name.	Legal address.	City address.
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A. B., 1901, Hobart College.		
<i>Topic, Economics.</i>		
John Warren Matson.....	Md. ....	Berwyn, Md.
B. A., 1901, Columbia University.		
<i>Topic, Ancient and Church History.</i>		
Emilie Watts McVea.....	N. C....	3122 P Street.
<i>Topic, English.</i>		
Rev. David Wallace Montgomery.....	Va .....	Herndon, Va.
A. B., 1889, Hastings College.		
<i>Topic, Ancient and Church History.</i>		
Rev. Ernest Moorehead Paddock.....	Pa. ....	1723 H Street.
A. B., 1894, University of Pennsylvania.		
1897, Theological School, Cambridge, Mass.		
<i>Topic, Philosophy.</i>		
Rev. George Freeland Peter ...	D. C....	207 A Street, S. E.
<i>Topic, Ancient and Church History.</i>		
Luther Adolph Richards.....	Va .....	1100 N. Y. Avenue.
B. A., 1902, Columbia University.		
<i>Topic, Pure Mathematics.</i>		
Frank Owen Stetson .....	Mass ...	1802 R Street.
B. S., 1888, Mass. Institute of Technology.		
<i>Topic, Spanish.</i>		
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A. B., 1884, A. M., 1887, Central Wesleyan College.		
<i>Topic, American History.</i>		
Giles Russell Taggart.....	N. Y....	Garrett Park, Md.
B. S., 1900, Columbia University.		
<i>Topic, English.</i>		
George Carroll Todd .....	Va.....	Dep't of Justice.
B. S., 1899, LL. B., 1902, Columbia University.		
<i>Topic, Political Science.</i>		
Martha Florence Torgerson.....	Wis....	Census Office.
B. S., 1896, University of Wisconsin.		
<i>Topic, Germanic Literature.</i>		
Sarah Agnes Wallace.....	D. C....	1425 Q Street.
Ph. B., 1902, University of Chicago.		
Fellow in English, 1902-'03, Columbia University.		
<i>Topic, English.</i>		
Harold Preston West.....	Me. ....	1337 15th Street.
B. A., 1900, Bowdoin College.		
<i>Topic, French.</i>		
Dr. Oscar Wilkinson .....	Miss....	1404 L Street.
M. D., 1896, Tulane University.		
Ph. B., 1902, University of Mississippi.		
<i>Topic, English.</i>		

*Doctor of Philosophy.*

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|--|----------------|--|
| William Mason Coleman. ....  | N. C. ....     | 119 2d Street.                               |
| A. B., 1888, A. M., 1892, University of North Carolina.                                  |                |  |
| <i>Topics</i> —Major, Continental History; Minors, Philosophy, English History.          |                |  |
| Rev. William Wilberforce Coston. ....  | N. B. ....     | Brooklandville, Md.                          |
| A. B., 1895, Mt. Allison College, N. B.  |                |  |
| M. A., 1901, Columbian University.   |                |  |
| <i>Topics</i> —Major, Philosophy; Minors, Continental History, German.                   |                |  |
| Franklin Davis. ....   | Va. ....       | Seminary, Va.                                |
| B. A., 1900, Hampden-Sidney College.   |                |  |
| <i>Topics</i> —Major, Biblical Literature; Minors, Church History, Philosophy.           |                |  |
| Herbert Ernest Day. ....   | Conn. ....     | Kendall Green.                               |
| B. Ph., 1893, Brown University.  |                |  |
| M. A., 1895, Gallaudet College.  |                |  |
| M. A., 1900, Columbian University.   |                |  |
| <i>Topics</i> —Major, English; Minors, American History, American Literature.            |                |  |
| Aida Mary Doyle. ....  | Pa. ....       | 1902 3d Street.                              |
| B. S., 1898, M. S., 1899, Columbian University.  |                |  |
| <i>Topics</i> —Major, Chemistry; Minors, Agricultural Chemistry, Geology.                |                |  |
| William Thomas Faulkner. ....  | Miss. ....     | Auditor P. O. Dep't.                         |
| B. S., 1898, M. S., 1900, Columbian University.  |                |  |
| <i>Topics</i> —Major, Spanish; Minors, French, English.                                  |                |  |
| Allan Bradshaw Fay. ....   | D. C. ....     | Kendall Green.                               |
| A. B., 1894, A. M., 1895, Harvard University.  |                |  |
| <i>Topics</i> —Major, American History; Minors, Continental History, English.            |                |  |
| Percival Hall. ....  | D. C. ....     | Kendall Green.                               |
| A. B., 1892, Harvard College.  |                |  |
| M. A., 1893, Gallaudet College.  |                |  |
| M. A., 1898, Columbian University.   |                |  |
| <i>Topics</i> —Major, Pure Mathematics; Minors, Applied Mathematics, Astronomy.          |                |  |
| Carl Hau. ....   | Germany.       | 1706 S Street.                               |
| M. A., 1902, Columbian University.   |                |  |
| <i>Topics</i> —Major, Continental History; Minors, German Literature, International Law. |                |  |
| William Perry Hay. ....  | D. C. ....     | Howard University.                           |
| B. S., 1891, M. S., 1892, Butler University.   |                |  |
| <i>Topics</i> —Major, Zoölogy; Minors, Botany, Geology.                                  |                |  |
| Edwin Allston Hill. ....   | Conn. ....     | Classification Div.,<br>U. S. Patent Office. |
| A. B., 1874, Yale University.  |                |  |
| M. S., 1901, Columbian University.   |                |  |
| <i>Topics</i> —Major, Chemistry; Minors, Physics, Electro-chemistry.                     |                |  |



Name.	Legal address.	City address.
William Eldridge Hillyer.....	D. C....	1365 Whitney Ave.
B. S., 1899, M. S., 1900, Columbia University.		
<i>Topics</i> —Major, Chemistry; Minors, Electro-chemistry, Electricity.		
Ida Hinman.....	Iowa...	Columbian Univ.
B. S., 1892, Iowa Wesleyan University.		
M. A., 1902, Columbia University.		
<i>Topics</i> —Major, English; Minors, German, French.		
William Mather Lamson.....	N. H....	1623 N Street.
B. S., 1897, C. E., 1899, Columbia University.		
<i>Topics</i> —Major, Applied Mathematics, 2; Minors, Applied Mathematics, 3; Pure Mathematics.		
Dr. Charles Neil McBryde.....	Va.....	Bio-Chemical Laboratory, Dep't Agric.
B. S., 1891, University of South Carolina.		
M. S., 1892, Virginia Polytechnic Institute.		
M. D., 1897, Johns Hopkins University.		
<i>Topics</i> —Major, Biochemistry; Minors, Botany, Zoology.		
Rev. Donald Campbell MacLeod....	D. C....	316 Indiana Ave.
B. A., 1895, M. A., 1898, Franklin College; 1898, Western Theological Seminary.		
<i>Topics</i> —Major, Philosophy; Minors, Sociology, Biblical Literature.		
Emerson Waldo Matthews.....	Ind.....	1414 15th Street.
A. B., 1891, Butler College.		
A. M., 1902, Harvard University.		
<i>Topics</i> —Major, Classical Philology; Minors, Latin, German.		
Thomas Herbert Means.....	D. C....	Dep't of Agriculture.
B. S., 1898, M. S., 1901, Columbia University.		
<i>Topics</i> —Major, Geology; Minors, Physical Chemistry, Physics.		
Joseph Strayer Mills.....	Md.....	Central High School.
B. A., 1890, M. A., 1893, Western Maryland College.		
<i>Topics</i> —Major, Chemistry; Minors, Mineralogy, Physics.		
Rev. William Manlius Nevins.....	Ky.....	122 5th Street, S. E.
A. B., 1898, A. M., 1899, Georgetown College, Ky.		
<i>Topics</i> —Major, Philosophy; Minors, German, History.		
Dr. Robert Edward Lee Newberne.....	Texas...	914 New York Ave.
M. D., 1893, Georgetown University.		
D. D. S., 1898, Tacoma College of Dental Surgery.		
B. S., 1901, M. S., 1901, Columbia University.		
<i>Topics</i> —Major, Neurology; Minors, Anatomy, Physiology.		

Name.	Legal address.	City address.
Charles Mathias Nissen.....	Ohio ...	U. S. Patent Office.
B. S., 1900, Case School of Applied Science.		
M. S., 1901, Columbian University.		
Topics—Major, Physics; Minors, Pure Mathematics, Applied Mathematics.		
Henry Orth, Jr. ....	D. C. ....	1011 L Street.
M. E., 1893, Lehigh University.		
M. S., 1899, Columbian University.		
Topics—Major, Physical Chemistry; Minors, Organic Chemistry, Theoretical Chemistry.		
George Edward Patrick..	Iowa ...	Bureau of Chemistry, Dep't of Agriculture.
B. S., 1874, M. S., 1874, Cornell University.		
Topics—Major, Agricultural Chemistry; Minors, Biochemistry, Bacteriology.		
William Clifton Phalen. ....	Mass ...	U. S. Nat. Museum.
B. S., 1899, M. S., 1902, Massachusetts Institute of Technology.		
Topics—Major, Geology; Minors, Petrography, Paleontology.		
Warren Waverley Phelan.....	N. Y. ....	822 Connecticut Ave.
B. A., 1894, M. A., 1896, Columbia University.		
Topics—Major, Comparative Jurisprudence; Minors, German and Continental History, Political Philosophy.		
Sarah Harvey Porter.....	D. C. ....	Kendall Green.
M. A., 1901, Columbian University.		
Topics—Major, English; Minors, German, French.		
Edward George Portner.....	D. C. ....	1104 Vermont Ave
B. S., 1897, M. S., 1898, Columbian University.		
Topics—Major, Organic Chemistry; Minors, Mineral Chemistry, Theoretical Chemistry.		
Thomas Malcolm Price. ....	Md. ...	1007 13th Street.
B. S., 1899, Maryland Agricultural College.		
M. S., 1900, Columbian University.		
Topics—Major, Biochemistry; Minors, Physiology, Bacteriology.		
Fred Ferguson Reisner.....	Mo. ....	323 T Street.
B. S., 1897, E. E., 1898, Columbian University.		
Topics—Major, Physics; Minors, Mathematics, Physical Chemistry.		
Harriet Richardson. ....	D. C. ....	1848 Wyoming Place.
A. B., 1896, A. M., 1901, Vassar College.		
Topics—Major, Zoology; Minors, Chemistry, Organic Chemistry.		
William Edwin Safford.....	Ohio ...	1324 U Street.
Graduate, 1880, U. S. Naval Academy.		
Topics—Major, Botany; Minors, Anthropology, Zoology.		

Name.	Legal address.	City address.
Christian George Storm.....	Wis....	316 Del. Ave., N. E.
B. S., 1898, M. S., 1899, Columbian University. <i>Topics</i> —Major, Chemistry; Minors, Physical Chemistry, Mineralogy.		
Dorothy Holland Sipe.....	D. C....	600 Mass. Ave.
A. B., 1899, Bryn Mawr College. M. A., 1902, Columbian University. <i>Topics</i> —Major, Greek; Minors, Latin, German.		
Alexander Summers.....	Tenn...	Bureau of Education.
B. A., 1876, M. A., 1893, University of Tennessee. <i>Topics</i> —Major, Political Economy; Minors, Comparative Politics, Philosophy.		
Ernest Lawton Thurston.....	D. C....	1503 R Street.
C. E., 1893, Columbian University. <i>Topics</i> —Major, Graphic Statics; Minors, Higher Calculus, Differential Equations.		
Gideon Baxter Travis.....	Mich....	733 6th Street.
B. S., 1901, Kalamazoo College. B. S., 1901, University of Chicago. M. A., 1902, Columbian University. <i>Topics</i> —Major, Constitutional Law; Minors, American Diplomatic History, Spanish.		
Samuel Wallis.....	D. C....	1752 Corcoran Street.
A. B., 1884, M. A., 1885, Georgetown College. <i>Topics</i> —Major, Analytical Chemistry; Minors, Biochemistry, Biology.		
Rev. Andrew Norman Ward.....	Md....	124 7th Street, S. E.
A. B., 1895, Western Maryland College. M. A., 1900, Columbian University. <i>Topics</i> —Major, English; Minors, Biblical Lit- erature, History.		
Thomas Alfred Witherspoon.....	Tenn...	U. S. Patent Office.
Graduate, 1883, U. S. Naval Academy. LL. B., 1891, M. S., 1897, Columbian University. <i>Topics</i> —Major, Physical Chemistry; Minors, Chemistry, Electricity.		

*Attendance on Graduate Courses.*

Rev. Frank Leighton Day.....	Va .....	3021 N Street.
B. A., 1891, M. A., 1896, Roanoke College. B. D., 1895, Vanderbilt University. Ph. D., 1902, Columbian University. <i>Topic</i> , Germanic Literature.		
John Bernard Robb.....	Va .....	College Park, Md.
B. S., 1899, Maryland Agricultural College. M. S., 1902, Columbian University. <i>Topic</i> , Organic Chemistry.		
Edna Livingston Stone.....	D. C....	1618 R. I. Avenue.
B. A., 1900, Woman's College of Baltimore. <i>Topic</i> , Germanic Literature.		

Total..... 489



## Department of Medicine.

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### FACULTY.

- CHARLES W. NEEDHAM, LL. D.,  
President of the University.
- EMIL A. DE SCHWEINITZ, Ph. D., M. D., Dean,  
Professor of Chemistry and Toxicology.
- J. FORD THOMPSON, M. D.,  
Professor of Surgery and Clinical Surgery.
- ALBERT F. A. KING, A. M., M. D.,  
Professor of Obstetrics and the Diseases of Women and  
Children, and Dean Emeritus.
- D. KERFOOT SHUTE, A. B., M. D.,  
Professor of Anatomy and Clinical Ophthalmology.
- WILLIAM P. CARR, M. D.,  
Professor of Physiology and Professor of Clinical Surgery.
- STERLING RUFFIN, M. D.,  
Professor of the Theory and Practice of Medicine and  
Professor of Clinical Medicine.
- THOMAS A. CLAYTOR, M. D.,  
Professor of Materia Medica and Therapeutics and Profes-  
sor of Clinical Medicine.
- HENRY C. YARROW, M. D.,  
Professor of Dermatology and Clinical Dermatology.
- HENRY L. E. JOHNSON, M. D.,  
Professor of Gynecology and Clinical Gynecology.
- THOMAS E. MCARDLE, A. M., M. D.,  
Professor of Minor Surgery.
- WILLIAM K. BUTLER, A. M., M. D.,  
Professor of Ophthalmology and Clinical Ophthalmology.
- CHARLES W. RICHARDSON, M. D.,  
Professor of Laryngology and Otology and Clinical Lar-  
yngology and Otology.
- \* EDMUND L. TOMPKINS, M. D.,  
Professor and Clinical Professor of Nervous Diseases.

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\*Absent on leave.

- A. R. SHANDS, M. D.,  
Professor and Clinical Professor of Orthopedic Surgery.
- JOHN VAN RENSSLAER, A. B., M. D.,  
Professor of Surgical Pathology and Clinical Surgery.
- W. F. R. PHILLIPS, M. D.,  
Professor of Hygiene.
- GEORGE N. ACKER, A. M., M. D.,  
Professor and Clinical Professor of Pediatrics and Clinical  
Medicine.
- G. WYTHE COOK, M. D.,  
Professor of Clinical Medicine.
- J. WESLEY BOVÉE, A. M., M. D.,  
Professor of Clinical Gynecology.
- RANDOLPH B. CARMICHAEL, M. D.,  
Professor of Clinical Dermatology.
- A. B. RICHARDSON, M. D.,  
Professor and Clinical Professor of Mental Diseases.
- JULIEN M. CABELL, M. D.,  
Associate Professor of Obstetrics.
- W. C. WOODWARD, M. D., LL. M.,  
Professor of Medical Jurisprudence.
- JAMES CARROLL, M. D.,  
Associate Professor of Pathology and Bacteriology.
- JOHN B. NICHOLS, M. D.,  
Professor of Normal Histology.
- J. H. FORD, B. S., M. D.,  
Professor of Tropical Diseases.
- FRANCIS R. HAGNER, M. D.,  
Clinical Professor of Genito-Urinary and Venereal Diseases.
- ALBERT L. STAVELEY, M. D.,  
Clinical Professor of Gynecology.
- W. L. ROBINS, M. D.,  
Acting Professor of Nervous Diseases.

## DEMONSTRATORS.

- W. F. R. PHILLIPS, M. D.,  
Demonstrator of Anatomy.
- EDWARD G. SEIBERT, M. D.,  
Associate in Chemistry in Charge of Chemical Laboratory.

FRANCIS P. MORGAN, A. B., M. D.,  
Assistant to the Chair of Materia Medica and Therapeutics,  
in Charge of the Pharmacy Laboratory.

L. W. GLAZERBROOK, M. D.,  
Curator of the Museum and Demonstrator of Pathological  
Anatomy.

D. W. PRENTISS, M. D.,  
Demonstrator of Normal Histology.

H. M. BENNETT, M. D.,                      SOTHORAN KEY, M. D.,  
THOMAS DOWLING, M. D.,  
Assistant Demonstrators of Normal Histology.

VIRGIL B. JACKSON, M. D.,	C. L. FOSTER, M. D.,
GEORGE B. HEINECKE, M. D.,	R. H. FORD, M. D.,
RICHARD WASHINGTON, M. D.,	J. L. RIGGLES, M. D.,
E. E. RICHARDSON, M. D.,	T. B. DIXON, M. D.,
E. P. COPELAND, M. D.,	R. M. LITTLE, M. D.,
C. S. WHITE, M. D.,	A. L. LAWRENCE, M. D.,
H. F. COLLINS, M. D.,	E. Y. GILCHRIST, M. D.,
W. A. FRANKLAND, M. D.,	T. S. D. GRASTV, M. D.,
F. A. MAZZEI, M. D.,	E. C. PRENTISS, M. D.,
S. H. GREENE, JR., M. D.,	

Assistant Demonstrators of Anatomy.

E. J. S. LUPTON, B. S., M. D.,  
Assistant.

GEORGE B. HEINECKE, M. D.,              E. E. RICHARDSON, M. D.,  
Prosectors to the Chair of Anatomy.

FRANK LEECH, M. D.,                      EDGAR COPELAND, M. D.,  
Demonstrators of Minor Surgery.

EDWARD E. MORSE, M. D.,  
Demonstrator of Obstetrics.

B. L. HARDIN, M. D.,  
Associate in Physical Diagnosis.

W. B. JOHNSTON, M. D.,  
Assistant in Physical Diagnosis.

FRANCIS R. HAGNER, M. D.,	H. C. MACATEE, M. D.,
W. B. JOHNSTON, M. D.,	E. L. MASON, M. D.,
C. S. WHITE, M. D.,	

Demonstrators of Pathology.

L. H. REICHELDERFER, M. D.,              H. C. MACATEE, M. D.,  
Instructors in Medicine.

H. S. MEDFORD, M. D.,  
Instructor in Obstetrics.



- E. P. COPELAND, M. D.,  
Instructor in Surgery.
- G. BROWN MILLER, M. D.,  
Instructor in Gynecology.
- C. S. WHITE, M. D.,  
Instructor in Physiology.
- J. S. RIGGLES, M. D.,                      H. M. MANNING, M. D.,  
Instructors in Anatomy.
- 

- O. A. M. MCKIMMIE, M. D.,  
Official Examiner of Applicants for Matriculation.
- 

### THE UNIVERSITY HOSPITAL.

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#### BOARD OF GOVERNORS OF THE UNIVERSITY HOSPITAL.

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 CHARLES W. NEEDHAM, LL. D., *Vice-President.*  
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 JOHN JOY EDSON, LL. B., *Treasurer.*

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| SAMUEL H. GREENE, D. D., LL. D. | D. KERFOOT SHUTE, A. B., M. D. |
| WM. F. MATTINGLY, LL. D.        | WILLIAM P. CARR, M. D.         |
| JOHN B. LARNER, LL. B.          | STERLING RUFFIN, M. D.         |
| E. M. GALLAUDET, LL. D.         | THOMAS A. CLAYTOR, M. D.       |
| T. W. NOYES, LL. M.             |                                |

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| D. KERFOOT SHUTE, A. B., M. D.  | STERLING RUFFIN, M. D.             |
| THOMAS A. CLAYTOR, M. D.        |                                    |

#### EXECUTIVE COMMITTEE OF THE HOSPITAL AND DISPENSARY.

- |                                    |                          |
|------------------------------------|--------------------------|
| ALBERT F. A. KING, A. M., M. D.    | STERLING RUFFIN, M. D.   |
| J. FORD THOMPSON, M. D.            | THOMAS A. CLAYTOR, M. D. |
| D. KERFOOT SHUTE, A. B., M. D.     | C. W. RICHARDSON, M. D.  |
| E. A. DE SCHWEINITZ, Ph. D., M. D. | Mrs. W. H. HOEKE.        |
| WILLIAM P. CARR, M. D.             | Mrs. WALBRIDGE.          |

## HOSPITAL AND DISPENSARY STAFF.

*Surgery.*

J. FORD THOMPSON, M. D., and W. P. CARR, M. D.  
Associate: John Van Rensselaer, M. D. Assistants: F. R. Hagner,  
M. D., V. B. Jackson, M. D., and H. C. Macatee, M. D.

*Medicine.*

STERLING RUFFIN, M. D., and THOMAS A. CLAYTOR, M. D.  
Associates: G. N. Acker, M. D., and B. L. Hardin, M. D. (in Dis-  
pensary). Assistants: Thomas Dowling, M. D., C. S. White,  
M. D., and E. P. Copeland, M. D.

*Obstetrics and Gynecology.*

A. F. A. KING, A. M., M. D.  
Associates in Gynecology: H. L. E. Johnson, M. D., and J. Wesley  
Bovée, M. D. Assistants: H. S. Medford, M. D., V. B. Jackson,  
M. D., and C. S. White, M. D.  
Associates in Obstetrics: E. E. Morse, M. D., Julian Cabell, M. D.

*Diseases of the Eye.*

D. K. SHUTE, A. B., M. D.  
Associate: W. K. Butler, M. D. Assistant: E. G. Seibert, M. D.

*Diseases of the Throat and Ear.*

C. W. RICHARDSON, M. D.  
Assistants: O. A. M. McKimmie, M. D., E. G. Seibert, M. D., and  
H. S. Dye, M. D.

*Diseases of the Skin.*

H. C. YARROW, M. D.  
Associate: R. B. Carmichael, M. D.

*Diseases of Children.*

T. E. MCARDLE, A. M., M. D.  
Assistants: Frank Leech, M. D., and Edgar P. Copeland, M. D.

*Orthopedic Surgery.*

A. R. SHANDS, M. D.

*Diseases of the Nervous System.*

E. L. TOMPKINS, M. D.  
Assistant: A. L. Lawrence, M. D.

*Genito-Urinary Diseases.*

FRANCIS R. HAGNER, M. D.

Assistants: W. T. Burch, M. D., and T. B. Dixon, M. D.

*Clinical Laboratory.*

E. A. DE SCHWEINITZ, Ph. D., M. D.

Associates: James Carroll, M. D., Pathologist and Bacteriologist;  
J. B. Nichols, M. D., and W. B. Johnston, M. D. (Hæmatologist).

Assistants: D. W. Prentiss, M. D., J. G. Fisher, and C. W. Hyde.

*Pathologist.*

JAMES CARROLL, M. D.

Assistant: L. W. Glazebrook, M. D.

*Superintendent.*

H. C. MACATEE, M. D.

*Superintendent of Nurses and Matron.*

Miss MINNIE M. PAXTON.

*Resident Physicians.*

GEORGE M. RUFFIN, M. D.

H. H. DONNALLY, A. M., M. D.

SAMUEL FRY, M. D.

*Pharmacist.*

C. V. NYMAN, Ph. G., M. D.

*Externs.*

H. C. COBURN, JR., B. S., M. D.

J. G. FISHER.

C. W. HYDE.

S. POWELL.

## NEW BUILDINGS OF THE DEPARTMENT OF MEDICINE AND THE UNIVERSITY HOSPITAL.

Extensive additions and improvements have recently been made. A large and thoroughly appointed new hospital has been erected. This hospital is entirely controlled by the Medical Faculty of the school, a point of great importance to the student of medicine.

The new building for the Department of Medicine, completed, and occupied October, 1902, has a frontage of 50 feet and a depth of 144, giving a total floor area of 36,000 square feet, more than four-fifths of an acre, five stories in height. It



has four large lecture halls, seating from 200 to 350 students each, large laboratories for chemistry, pharmacy, histology, physiology, bacteriology, pathology, and anatomy; recitation-rooms, professors' rooms, museum and reading-room, and study-rooms. Every facility is given, therefore, for the best of theoretical and practical work.

### ADMISSION.

Candidates for matriculation are required to show that they are fitted, by previous education, for the study of medicine, and for this purpose they must either pass an examination, or present a satisfactory certificate of their attainments from an approved school or college.

Students conditioned or unable to pass the examination in Latin or in Physics may obtain instruction on these subjects during the first year, and on passing a satisfactory examination before the beginning of the second year will be regularly matriculated.

Dr. O. A. M. McKimmie, 1333 N Street, will give further information in regard to the examinations for admission.

### ADVANCED STANDING.

Students of other institutions who have attended one course of lectures in any regular medical school are placed upon the same footing as those who have attended one course in this Department, and those who have attended two (or three) courses of lectures in any other regular medical school or schools rank with those who have attended two (or three) courses in this Department, and the same privileges as regards examination are extended to them; they are admitted respectively as second, third, or fourth year students after passing a satisfactory examination upon the subjects required of our own students during the first, second, and third years, as previously described.

### ADMISSION REQUIREMENTS FOR 1905.

To be admitted to the First-Year Class, after July 1, 1905, the applicant must show either a diploma or certificate from a reputable college granting the degree of A. B., B. S., or equivalent degree, or a diploma from a normal school established by State authority, or a high school of the first grade, or a medical student's certificate issued after an equivalent examination by a State Board, or a student's certificate of examination for admission to the freshman class of a reputable

literary or scientific college; or a certificate of his having passed an examination conducted by certified examiners appointed by the State or District Superintendent of Public Instruction.

- (a) English Composition, Grammar, Rhetoric; the equivalent of two years' work in this branch.
- (b) Mathematics, including Arithmetic, Algebra, and Plane Geometry.
- (c) Latin; the equivalent of one year's study, covering at least one book of Caesar's Commentaries or an equivalent thereof.
- (d) Elementary Physics.
- (e) United States History.
- (f) Three additional branches of the student's choice (each one to be an equivalent of a year's work), selected from the following: General History, Civics, English Literature, German, French, Latin (Caesar, Virgil, or Cicero), Physiology, Botany, Zoölogy, Chemistry, Physical Geography.

In place of any part of this examination, official certificates will be accepted from the above-described schools. If the student should fail to pass in two-fifths of the branches of the examination, he will be admitted with the condition that he make up his deficiencies before entering the Second-Year Class. Instruction in the conditioned branches can be obtained from competent teachers for a small fee, and examinations will be held by official examiners at convenient times. The preliminary examination is not held by any person connected with the teaching staff of this Department.

#### COURSES OF INSTRUCTION.

The system of instruction adopted by the Department of Medicine of this University comprises lectures and recitations on Anatomy, Histology, Physiology, Chemistry, Materia Medica and Therapeutics, Surgery, Minor Surgery, Orthopedics, Obstetrics, the Theory and Practice of Medicine, Pathology, Hygiene, Bacteriology, Otology, Laryngology, Gynecology, Dermatology, Ophthalmology, Mental Diseases, Medical Jurisprudence, Nervous Diseases, Pædiatrics, Laboratory instruction in Anatomy, Chemistry, Histology, and Pathological Histology, Bacteriology, Physiology, Pharmacy, Clinical Medicine, and Clinical instruction in Medicine, Obstetrics, Surgery, and the special subjects.



The eighty-second course of lectures begins on Wednesday, September 30, 1903.

The Introductory Lecture of the Course will be delivered by Professor Thomas A. Claytor, on September 30th, and the regular didactic lectures will continue throughout the session. Two courses of lecture, laboratory, and clinical work will be given during the year, the one beginning daily at 9.30 a. m., the other at 4.30 p. m. The student may select either course. The laboratories and dissecting-room are open at stated hours day and evening. There are practical clinics during the day.

### SURGERY.

PROFESSOR THOMPSON, Surgeon to the University Hospital, the Children's Hospital, and to the Garfield General Hospital.

The course embraces didactic lectures upon the Principles and Practice of Surgery, and, as far as practicable, clinical instruction in the Department.

As Professor THOMPSON is the attending Surgeon of the University, Children's, and Garfield Hospitals, students are offered the opportunity for Clinical Instruction in these institutions.

Every effort is made to teach Surgery in accordance with the latest developments of scientific research. Operations are performed upon the cadaver, and the uses of all important surgical instruments and appliances are demonstrated in the same manner.

MINOR SURGERY.—Practical class instruction is given by Professor MCARDLE and his assistants in the application of splints, dressings, etc., for the various surgical diseases and injuries.

### OBSTETRICS AND GYNECOLOGY.

PROFESSOR KING, Obstetrician to the University Hospital,  
One of the Consulting Physicians to the  
Children's Hospital, etc.

This course comprises a series of lectures on the Science and Art of Midwifery, and on the Diseases of Women. The chief purpose of the lecturer is to arrange, simplify, and explain the matters studied in the text-books, so as to render them more easily intelligible, and to indicate their relative importance. The lectures are illustrated by diagrams, models, manikins,



natural preparations, and instruments. The demonstrator of Obstetrics, Dr. Edward E. Morse, of the Columbia Hospital, demonstrates obstetric operations and students perform these operations upon the manikin, under his direction. This course is limited to fourth-year students, and all are required to take it before becoming candidates for graduation.

Clinical Instruction in Obstetrics will be given by Dr. Cabell at the Columbia Lying-in Hospital, and by Dr. King and his associates at the Columbian University Hospital. Recitations in Obstetrics will be held throughout the term by Dr. Homer S. Medford.

In the Department of Gynecology the various instruments and appliances used in treating the diseases of women are exhibited and their uses fully explained. Clinical instruction in Surgical Gynecology will be given by Prof. H. L. E. Johnson at the hospitals, where students will witness the various surgical operations required in gynecological cases. Recitations in Gynecology will be held throughout the term by Dr. G. B. Miller.

#### ANATOMY.

PROFESSOR SHUTE, Ophthalmic Surgeon to the University Hospital and to the Washington Hospital for Foundlings.

The instruction in Anatomy is given in a graded course of lectures, recitations from prescribed text-books, and especially by practical work in the dissection of the cadaver.

The lectures are illustrated by the use of dry and wet dissections of the cadaver, by models, diagrams, charts, and sciop-ticon views.

Special attention is given during the course to *Applied Anatomy*, which is of great importance in the practice of medicine.

Public oral examinations are conducted by the Professor and his assistants on assigned subjects at stated intervals.

PRACTICAL ANATOMY.—Practical work in osteology and in dissection are of fundamental importance. For the study of these subjects the students are divided into sections in order to make the instruction as practical and immediate as possible.

The bones of the skeleton are placed in each student's hands and he is instructed and quizzed upon all their important features.

Anatomical material is supplied in abundance.

The new dissecting-room of the Department is large, thoroughly ventilated, well-lighted and heated, and furnished with every requisite for the convenience and comfort of the student. The dissecting-room is under the direction of the Professor of Anatomy.

The Demonstrator of Anatomy and his assistants are present at stated hours to give personal attention to the students and properly instruct them in their dissection.

#### GRADUATE COURSE IN NEUROLOGY.

This course includes laboratory work, readings, and recitations. The nervous system is investigated in typical animals of the different classes, especially with the view of gaining some insight into the phylogeny of the Central Nervous System in Man. The growth of the brain and its physical characters as related to intelligence are investigated. The histology and embryology of the Central Nervous System and the Sense Organs are studied. A history of the guiding conceptions in Neurology is to be acquired. The course is designed to inculcate a sound knowledge of the architecture and functions of the Nervous System of Man for the use of students of Anatomy, Medicine, and Psychology.

#### CHEMISTRY AND TOXICOLOGY.

PROFESSOR DE SCHWEINITZ, in Charge of Clinical Laboratory, University Hospital, and Director of the Biochemic Laboratory, B. A. I., Department of Agriculture.

This course embraces :

A short discussion of the principles of physics in their relation to chemistry, the principles of chemical philosophy, the laws of chemical combination and affinity.

The elements, metals and non-metals; their methods of isolation, properties, compounds, and reactions, are studied.

Due attention is given to organic chemistry, especially those compounds that are of use in medicine, and also to physiological chemistry.

Laboratory instruction, in charge of the Professor of Chemistry and associate, Dr. E. G. Seibert, is given in the general methods of qualitative and quantitative analysis, volumetric analysis, toxicology, urine analysis, water analysis, and special clinical analyses.

## GRADUATE COURSE IN BIOCHEMISTRY.

This course embraces, in addition to what is ordinarily called physiological chemistry, the following subjects :

- a.* A study of the products of the growth of germs, either in the animal body or upon artificial media.
- b.* The influence of these substances in causing disease and their relation to immunity.
- c.* The anti-toxins and methods of their preparation, hæmolytins, præcipitines, etc.
- d.* The preparation and properties of the enzymes will also be studied.

## PHYSIOLOGY.

PROFESSOR CARR, Associate Surgeon to the University Hospital and Surgeon to the Central Dispensary and Emergency Hospital.

This subject is fully presented in a graded course of lectures covering the first two years.

The lectures are well illustrated by diagrams, models, and anatomical specimens, so as to make them clear in every detail.

A new physiological laboratory is ready for use, where students will be required to do practical work during the first and second years. This work will be in sections, and opportunity will also be given to advanced students for original research.

## THEORY AND PRACTICE OF MEDICINE.

PROFESSOR RUFFIN, Physician to the University Hospital and Consulting Physician to St. Elizabeth's Hospital, and to the Central Dispensary and Emergency Hospital.

The student is urged to pay special attention to the course in Histology during the second year, as this is essential to a proper understanding of the internal diseases of the human body. The courses in Pathology and Bacteriology should also receive the closest study, for without a clear knowledge of these subjects no satisfactory advance can be made.

The method of instruction employed in this subject is as follows :

1. Lectures, with weekly recitations.



2. Clinical lectures at the University Hospital, with practical instruction in the art of diagnosis and in the methods of taking and recording histories of medical cases.

3. Laboratory instruction in the use of instruments of research for the clinical study of the sputum, blood, feces, etc.

4. A course of lectures, with class instruction in physical diagnosis.

### MATERIA MEDICA AND THERAPEUTICS.

PROFESSOR CLAYTOR, Physician to Garfield Hospital and to the University Hospital, Consulting Physician to St. Elizabeth's.

Instruction in this subject extends through the first three years, and embraces:

1. The study of crude drugs and their preparations, and the art of prescribing.

2. The physiological action of drugs in the human system.

3. The practical application of drugs and other therapeutical agencies to the prevention and cure of disease and the relief of suffering, together with their antidotal relations to poisons.

The subject is taught by means of lectures, recitations, and blackboard illustrations, and is simplified and made practical to as great a degree as is compatible with a sufficiently thorough understanding of its principles.

In connection with this chair is a pharmaceutical laboratory, under the immediate supervision of Dr. F. P. Morgan, well equipped with modern appliances, in which are taught the making of typical preparations of the Pharmacopœia, prescription writing, and the compounding of prescriptions. Practical instruction is also given in Electro-Therapeutics.

### DERMATOLOGY.

PROFESSOR YARROW, Dermatologist to the University Hospital and one of the Consulting Physicians to the Garfield Hospital, Children's Hospital, and Woman's Clinic.

Professor Yarrow lectures on this subject, illustrating it by diagrams, models, photographic illustrations of disease from life, and also by the exhibition of cases. In connection with the course, clinical instruction is given by Dr. Carmichael at the Central Dispensary and Emergency Hospital and the Uni-

versity Hospital, where an abundance of material affords excellent clinical advantages.

#### PÆDIATRICS.

PROFESSOR ACKER, Associate Physician to the University Hospital and Physician to the Children's Hospital.

Didactic and clinical lectures are given upon diseases of infants and children and the importance of the proper management of these diseases by diet and hygiene.

#### GYNECOLOGY.

PROFESSOR JOHNSON, Associate Gynecologist, University Hospital; Consulting Physician to Woman's Clinic and Washington Asylum Hospital.

Lectures are given on the diseases peculiar to women, with special clinical instruction in physical diagnosis at the Emergency Hospital from October to May. Students are required to attend. Operative work will be demonstrated as frequently as possible. The Professor has organized in connection with his service an outdoor maternity clinic, which is open to students.

#### MINOR SURGERY.

PROFESSOR McARDLE, Pædiatrician, University Hospital.

The course in Minor Surgery consists of lectures and practical demonstrations concerning bandaging, preparation of materials used in aseptic and antiseptic dressings, preparations for aseptic or antiseptic operations, strapping, vaccination, and other minor surgical procedures. Under the supervision of assistants, the students themselves apply the various splints, bandages, surgical dressings, etc.

#### OPHTHALMOLOGY.

PROFESSOR BUTLER, Ophthalmologist at Garfield Hospital, in Charge of the Lutheran Eye and Ear Infirmary, and Associate Ophthalmologist, University Hospital.

A didactic course on this subject is given, together with clinical instruction, at the Lutheran Eye and Ear Infirmary.

## LARYNGOLOGY AND OTOTOLOGY.

PROFESSOR RICHARDSON, Laryngologist to the University, the Providence, and the Episcopal Eye, Throat, and Ear Hospitals.

This course comprises lectures and clinical instruction on diseases of the nasal passages, pharynx, larynx, and also the ear.

Practical demonstrations are given in the use of the laryngoscope and other instruments required in these special branches.

## NERVOUS DISEASES.

PROFESSOR TOMPKINS, in Charge of the Department of Nervous Diseases at the Central Dispensary and Emergency Hospital, Associate in Nervous Diseases, University Hospital.

Lectures and clinics are given upon the more common and important nervous affections.

## SURGICAL PATHOLOGY.

PROFESSOR VAN RENSSLAER, Associate Surgeon, University Hospital, and one of the Surgeons to the Garfield Hospital.

This course is a series of lectures upon the pathological anatomy of surgical diseases and injuries and upon surgical bacteriology, illustrated by means of charts and photographs.

## ORTHOPEDIC SURGERY.

PROFESSOR SHANDS, Orthopedist, University Hospital.

This course embraces didactic lectures on the Pathology, Etiology, course and termination of all chronic joint diseases, and, as far as practicable, with clinical instruction on treatment of them according to the most modern orthopedic methods.

Special attention is given to the correction of all deformities, either acquired or congenital, by both mechanical and operative measures. There are afforded also practical illustrations as to applications of all the most modern orthopedic appliances.

Practical instruction is given in the application and use of plaster of Paris in the treatment of Pott's Disease, Scoliosis, Club Feet, etc.



## HYGIENE.

PROFESSOR PHILLIPS, Climatologist, U. S. Weather Bureau.

The course in Hygiene is directed to teaching the relations of habits and surroundings to health. Consideration is given to domestic and municipal sanitation and to the principles underlying legislative interference in matters of public health.

## BACTERIOLOGY AND PATHOLOGY.

ASSOCIATE PROFESSOR CARROLL, Professor of Bacteriology and Clinical Microscopy, Army Medical School; Pathologist of the University Hospital, of Columbia Hospital, and Assistant Curator of the Army Medical Museum.

In this department an effort is made to give the student a practical knowledge, first, of the preparation of the various culture media, the principles of disinfection and sterilization, and the methods of cultivating, staining, and studying bacteria. Special attention is given to the pyogenic organisms and the bacilli of diphtheria and tuberculosis.

The latter half of the session is devoted to Pathology, and the student is now prepared to appreciate the association of these organisms with certain definite lesions in the tissues. After the detailed study of inflammation the diseases of the various organs are taken up in succession as far as possible. For this purpose sections illustrating the various pathological conditions are carefully selected and given to the student to be stained, mounted, and studied under the immediate supervision of the instructor. These sections become thereafter the property of the student. The course terminates with the microscopical study of the several varieties of tumors.

Advanced students who desire to continue the work will be encouraged to undertake bacteriological and pathological studies of the cases that come to autopsy in the new University Hospital. In making selections from applicants, preference will be given to those who show the greatest aptitude during the regular course.

## MENTAL DISEASES.

PROFESSOR RICHARDSON, Superintendent of the Government Hospital for the Insane, St. Elizabeth's.

A series of lectures and clinics is given upon the subject of insanity in its varied forms.

## CLINICAL MICROSCOPY.

ASSOCIATE PROFESSOR CARROLL.

This course embraces the study of fresh and stained preparations of human blood in normal and pathological conditions ; the Widal test for typhoid fever ; the developmental stages of the malarial parasites in the blood and in the mosquito ; the common forms of intestinal parasites and the microscopical examination of the urine. Opportunity will be afforded students who have taken the course to assist in the routine examinations of blood, sputum, urine, etc., in the hospital laboratory.

## NORMAL HISTOLOGY.

PROFESSOR NICHOLS.

The course in Normal Histology is required of students in the second year, and extends throughout the session. The Histological Laboratory, open both day and evening, is amply equipped with microscopes, apparatus, and material for practical histological work and for purposes of instruction. A systematic presentation of the facts relating to cytology and the minute structure of the tissues and organs of the body is given by means of lectures, the study of microscopical specimens, and the projection microscope. Students are also given practical instruction in the manipulation and care of the microscope, in the preparation of specimens for microscopical examination, and in microscopical technique generally. Examinations are held at the close of the session.

## MEDICAL JURISPRUDENCE.

PROFESSOR WOODWARD, Health Officer of the District of Columbia.

This course is designed to familiarize students with the rights and obligations of physicians, both legal and ethical, and to qualify them to apply the facts of medical science to the solution of problems in law.

## LABORATORY INSTRUCTION.

As already noted in the introduction, the well-equipped new building is provided with modern laboratories for practical in-

struction in Anatomy, Physiology, Chemistry, Bio-Chemistry, Pharmacy, Normal Histology, Bacteriology, Pathological Histology, and Clinical Microscopy. These are large, well-lighted, and well-ventilated rooms, with a complete outfit of apparatus for each student. The desks are provided with water, gas, and steam and every facility for the best of practical work. Great stress is laid upon laboratory work in all the subjects named.

The Pathological Museum is equipped with a large number of interesting and valuable specimens. Dr. L. W. Glazebrook, the Deputy Coroner of the District of Columbia, is Curator of the Museum, and from time to time adds valuable specimens to the collection.

### CLINICAL INSTRUCTION.

Attendance upon Clinical Instruction in Medicine and Surgery during at least two years is required, and upon other clinics as indicated by the special schedule. Records of attendance on these clinics will be kept and will duly affect the student's standing in his classes.

### TEXT-BOOKS AND WORKS OF REFERENCE.

(The works first named and in *italics* are preferred.)

**Anatomy.**—*Cunningham's Text-Book of Anatomy*; *Cunningham's Manual of Practical Anatomy*; *Treve's Applied Anatomy*; Wiedersheim's *Structure of Man*.

**Physiology.**—Kirke's; Stewart's *Manual*; Yeo's, or Landois & Sterling's *Physiology*.

**Chemistry.**—*Richter's*, Remsen's, *Simon's*, or Fowne's *Chemistry*; Bowman's *Medical Chemistry*; Witthaus' *Chemistry*; Purdy's *Uranalysis*; Remsen's *Organic Chemistry*.

**Materia Medica.**—*H. C. Wood's Therapeutics*; Hare's *Practical Therapeutics*; Culbreth's *Materia Medica and Pharmacy*; National Dispensatory.

**Surgery.**—*American Text-Book of Surgery*; *Surgery by American Authors*, Park; *Surgical Pathology and Therapeutics*, Warren.

**Practice of Medicine.**—Osler; Tyson; Anders; Thompson, "Modern Medicine;" Salinger-Kaltayer; Da Costa's *Hare's Diagnosis*; Musser's *Diagnosis*; Clinical *Diagnosis*, Simon; Klemperer; Clinical *Examination of the Blood*, Cabot.

**Obstetrics.**—*Playfair's Obstetrics*; *American Text-Book of Obstetrics* (Saunders); A. F. A. King's *Manual of Obstetrics*; Jewett's *Practice of Obstetrics*.



**Gynecology.**—*Garrigue's Diseases of Women*; Penrose, *Diseases of Women*; Montgomery's *Text-book of Gynecology*; Byford's *Manual of Gynecology*; Dudley's *Gynecology*.

**Diseases of Children.**—*Holt on Diseases of Infants and Children*; J. Lewis Smith; Koplik; Rotch's *Work*.

**Histology.**—Böhm; Davidoff; *Piersol's*; Nichols; Stöhr; Sabotta.

**Pathology and Bacteriology.**—Abbott's *Principles of Bacteriology*; Ziegler's *Pathological Anatomy*.

**Hygiene.**—Harrington's *Practical Hygiene*; Stephenson and Murphy's *Treatise on Hygiene and Public Health*.

**Dermatology.**—Hyde's *Diseases of the Skin*; Jackson's *Diseases of the Skin*; Duhring's *Diseases of the Skin*.

**Ophthalmology.**—Nettleship, de Schweinitz, or Fick.

**Minor Surgery.**—Wharton.

**Nervous Diseases.**—Text-book, Potts' *Nervous and Mental Diseases*; Oppenheim, for Reference; Gray, Mills, Church, Peterson.

**Mental Diseases.**—Beaven Lewis.

**Orthopedic Surgery.**—Bradford and Lovett's or Young's *Orthopedic Surgery*.

**Laryngology and Otology.**—Bacon, Buck, Dench on the Ear; Kyle, Price, Brown, F. S. Bishop on Throat Diseases; Diseases of Ear, Nose, and Throat, by Burnett, Ingals, and Newcomb; Diseases of Nose and Throat, by Shurley; Diseases of Nose and Throat, by Coakley; Posey and Wright's Ear, Nose, and Throat.

**Medical Jurisprudence.**—Reese, *Medical Jurisprudence and Toxicology*; Ewell, *Medical Jurisprudence*; Taylor, *Law in its Relation to Physicians*; Hamilton, *System of Legal Medicine*; Taylor's *Manual*.

**Genito-Urinary and Venereal Diseases.**—White and Martin; Hyde, Montgomery, Heys and Chetwood.

**Dictionaries.**—Dunlison's, Duane's, Foster's, Gould's, or Dorland's.

## GRADUATION

Candidates for the degree of Doctor of Medicine must be of good moral character and at least twenty-one years of age; they must have studied medicine four years, and must have attended four courses of lectures, the subjects arranged as follows:

### *First Year.*

Unless otherwise stated, numbers indicated below mean lecture hours per week.

**Anatomy.**—Six hours before, two hours after Christmas; two hours' recitation.

**Physiology.**—Four hours before, two hours after Christmas; two hours' recitation.

Chemistry.—Two hours before, two hours after Christmas ; three hours' laboratory work.

Materia Medica.—Two hours before, two hours after Christmas ; two hours' laboratory work.

Anatomical Laboratory.—Practical Osteology, forty hours' work during the term and practical dissecting. Dissection-room open from 12 m. to 3 p. m., and from 7.30 to 11 p. m.

Examination at the end of the year upon the above-named subjects.

*Second Year.*

Anatomy.—Three hours before, two hours after Christmas ; two hours' recitation.

Physiology.—Four hours before, three hours after Christmas ; two hours' recitation.

Chemistry.—Two hours before, two hours after Christmas ; four hours' laboratory work.

Therapeutics.—Two hours before, two hours after Christmas ; one hour recitation.

Minor Surgery.—One hour, October 9 to December 11, in manikin-room.

Histology.—Laboratory, day and evening.

Anatomical Laboratory, Practical Osteology and Practical Anatomy.—Dissection-room open from 12 m. to 3 p. m., and from 7.30 to 11 p. m.

Examination at the end of this year upon the above-named subjects.

*Third Year.*

Surgery.—Two hours before, two hours after Christmas ; one hour recitation.

Medicine.—Two hours before, two after Christmas ; one hour recitation.

Obstetrics.—Two hours before, two hours after Christmas ; one hour recitation.

Therapeutics.—Two hours before, two hours after Christmas ; one hour recitation.

Dermatology.—One hour, from January 8 to March 11.

Ophthalmology.—One hour, from October 9 to December 10.

Bacteriology and Pathology.—Nine hours' laboratory work per week.

Surgical Pathology.—One hour, from October 12 to December 21.

Clinics as scheduled.

Medical Jurisprudence.—One hour, October 10 to December 19.

Mental Diseases.—Two hours, January to April.

Hygiene.—Three hours, January 7 to January 29.

Examination on the above-named subjects at the end of the year.

*Fourth Year.*

Surgery.—Two hours before, two hours after Christmas; one hour recitation.

Medicine.—Two hours before, two hours after Christmas; one hour recitation.

Obstetrics.—Two hours before, two hours after Christmas; one hour recitation.

Clinics and laboratory instruction.

Gynecology.—One hour, and clinics from October to May; one hour recitation.

Nervous Diseases.—Three hours, from November 5 to November 26.

Pædiatrics.—One hour, and clinics from January to April.

Otology and Laryngology.—Three hours, from October 14 to November 29.

Orthopedic Surgery.—Three hours, from October 8 to October 29.

Clinics as scheduled.

Final examination at the close of the fourth year upon the above-named subjects.

The candidate must have dissected for at least two sessions, during each of which he will be required to dissect two "parts" of a subject, and it is recommended that he dissect three parts. He must have attended also the required courses of clinical instruction in Medicine, Surgery, Obstetrics, and Special Branches.

One month before the close of the session he shall enter his name with the Dean of the Faculty as a candidate for graduation, and at the end of the term present himself for examination. The examination is both written and oral. The examination for the degree is held at the end of the session in May.

Graduates of other accredited medical schools must pass a satisfactory examination and attend one year before receiving a diploma from this University.

Students who fail to pass the examination in the spring may be allowed a reëxamination in the following fall *only*.

The diploma is presented at the Annual Commencement, and the degrees are conferred by The Columbian University, incorporated by act of the Congress of the United States.



## CLINICAL INSTRUCTION.

THE UNIVERSITY HOSPITAL.—Clinical teaching is conducted in the *new and enlarged hospital* in conjunction with the didactic lectures in the various branches. The convenient location and the fact that the hospital is under the immediate control of the Medical Faculty offer unusual advantages to the students of this department.

GARFIELD HOSPITAL.—Clinical lectures are given regularly during the session by Professors Thompson and Van Rensselaer on Surgery, by Professors Cook and Claytor on Medicine, Carmichael on Dermatology, Butler on Ophthalmology, and Staveley on Gynecology. A great variety of medical and surgical diseases is to be seen in this institution, affording abundant material for clinical diagnosis and operative surgery.

CHILDREN'S HOSPITAL.—A weekly course of Surgical and Medical Clinics is given by Professors Thompson and Acker. An opportunity is here afforded for observing all the medical and surgical diseases, injuries, etc., to which children are liable. The Dispensary service of the Hospital is very large and instructive.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—Dr. Tompkins, in charge of nervous diseases; Dr. Shands on general medicine; Dr. Carmichael, in dermatology; and Dr. Hagner, in genito-urinary and venereal diseases, conduct courses of instruction in their respective branches.

PROVIDENCE HOSPITAL.—Clinical Instruction, both medical and surgical, is given by the staff of this institution. Gynecological clinics by Dr. J. W. Bovée.

LUTHERAN EYE AND EAR INFIRMARY.—The diseases of the eye and ear in this hospital are demonstrated during the clinics of Professor Butler.

EPISCOPAL HOSPITAL.—Dr. Richardson shows cases of diseases of the nose, throat, and ear in the dispensary service of this hospital.

COLUMBIA HOSPITAL.—Clinics and gynecological operations by Dr. Bovée.

ST. ELIZABETH'S.—Dr. A. B. Richardson, the superintendent, will give clinical instruction in mental diseases.

COLUMBIA HOSPITAL.—Dr. Cabell will give clinical instruction in obstetrics.

## CLINICS, 1902-1903.

*University Hospital.*

Surgery.—Dr. Thompson, Tuesdays; Drs. Van Rensselaer and Carr.

Medicine.—Dr. Ruffin, Saturdays, at 4.30; Drs. Claytor and Acker.

*Dispensary Service.*

Surgical Diseases.—Dr. Copeland, Tuesdays, Thursdays, and Saturdays, 1 to 2 p. m.

Medical Diseases.—Dr. Hardin, Tuesdays, Thursdays, and Saturdays, 2 to 3 p. m.

Gynecology.—Dr. H. L. E. Johnson and Dr. Bovée, Wednesdays and Fridays, 1 to 2 p. m.

Diseases of the Eye.—Dr. Shute, Mondays and Thursdays, 2 to 3 p. m.

Diseases of the Ear and Throat.—Dr. Richardson, Mondays and Thursdays, 1 to 2 p. m.

Diseases of the Skin.—Drs. Yarrow and Carmichael, Mondays, 2 to 3 p. m.

Diseases of Children and Orthopedic Surgery.—Drs. McArdle and Shands, Wednesdays and Saturdays, 2 to 3 p. m.

Nervous Diseases.—Dr. Tompkins, Tuesdays and Fridays, 2 to 3 p. m.

Genito-Urinary and Venereal Diseases.—Dr. Hagner, Saturdays, 1 to 2 p. m.

*At the Garfield Hospital.*

Surgery.—Dr. Thompson, Sundays, at 10.30, November to April; Dr. Van Rensselaer, Sundays, at 10.30, October 1 to November 1.

Medicine.—Dr. Claytor, Tuesdays and Thursdays, at 4.15, October 1 to January 1; Dr. Cook, Tuesdays and Thursdays, at 4.15, January 1 to April 1.

Medical Dispensary Service.—Dr. Nichols, Mondays, Wednesdays, and Fridays, at 2 p. m.

Surgical Dispensary Service.—Dr. Francis R. Hagner, Tuesdays, Thursdays, and Saturdays, at 2 p. m.

Dermatology.—Dr. Carmichael, Saturdays, at 2 p. m.

Gynecology.—Dr. A. L. Staveley.

*At the Children's Hospital.*

Children's Diseases.—Dr. Acker, Wednesdays, at 4.15 p. m., January 1 to April 1.

Surgery.—Dr. Thompson, Tuesdays, at 10.30 a. m., October to April.

Medical Dispensary Service.—Dr. Leech, Tuesdays, Thursdays, and Saturdays, at 2 p. m.; Mondays, Wednesdays, and Fridays, at 2 p. m.

Surgical Dispensary Service.—Dr. McArdle, Tuesdays, Thursdays, and Saturdays.

*At the Central Dispensary and Emergency Hospital.*

Orthopedic Surgery.—Dr. Shands, Fridays, at 1 p. m. (fourth year).

Nervous Diseases.—Dr. Robins, Mondays and Thursdays, at 12 noon (fourth year).

Surgery.—Dr. W. P. Carr, Daily, at 2 p. m., and Thursdays, at 5.30 p. m., October to January 15; Dr. W. B. Jackson, clinical assistant.

Genito-urinary.—Dr. Francis R. Hagner, Wednesdays, 1 to 2 p. m. (fourth year).

Dermatology.—Dr. Carmichael, Tuesdays and Fridays, 1 to 2 p. m. (third year).

*At the Lutheran Dispensary.*

Ophthalmology.—Dr. Butler, Tuesdays, at 1 p. m. (third year).

*Episcopal Eye, Ear, and Throat Hospital.*

Otology and Laryngology.—Dr. Richardson, Saturdays, at 1 p. m., November and December (fourth year).

*At Providence Hospital and at Columbia Hospital by Special Invitation.*

Gynecology.—Dr. Bovée, Mondays and Thursdays (fourth year).

*Columbia Hospital.*

Obstetrical Demonstrations.—Dr. Cabell will superintend this work at the hospital, and notify fourth-year students when cases are ready.

*At St. Elizabeth's.*

Mental Diseases.—Dr. A. B. Richardson, Saturdays, January 1 to April 1.



Clinics at the UNIVERSITY HOSPITAL will be given by members of the Faculty at hours to be named at the beginning of the course.

In addition, clinics will be given at the other hospitals of the city.

*Cards giving exact days and hours of all clinical instruction are issued at the beginning of each term.*

When the student presents himself for graduation his record must show that he has attended full courses in clinical instruction in the various branches required.

#### PRIZES.

**GENERAL EXAMINATION PRIZE.**—At the end of the year a general examination prize of fifty dollars is awarded. It is given to the candidate for graduation who shall pass the best general examination.

**FACULTY PRIZE.**—The Faculty awards two prizes—one for proficiency in Clinical Medicine and one for proficiency in Clinical Surgery.

**YARROW PRIZE.**—Professor H. C. Yarrow gives a prize for the best examination in Dermatology.

**JOHNSON PRIZE.**—Professor H. L. E. Johnson gives a prize for the best examination in Clinical Gynecology.

**RICHARDSON PRIZE.**—Professor C. W. Richardson gives a prize for the best examination in Laryngology and Otology.

**TOMPKINS PRIZE.**—Professor E. L. Tompkins gives a prize for the best examination in Nervous Diseases.

**ACKER PRIZE.**—Professor Acker gives a prize for the best examination in Pædiatrics.

**BUTLER PRIZE.**—Professor Butler gives a prize for the best examination in Ophthalmology.

#### PRIZE AWARDS. 1902.

General Examination Prize of \$50 in gold, awarded to Henry F. Pipes, of West Virginia.

First honorable mention, Henry M. Jewett, of New Hampshire.

Second honorable mention, Samuel Fry, of Louisiana.

Third honorable mention, Robert C. Ransdell, of Indiana.

The C. W. Richardson Prize in Laryngology and Otology, awarded to Henry F. Pipes, of West Virginia.

The W. K. Butler Prize in Ophthalmology, awarded to Henry F. Pipes, of West Virginia.

The George N. Acker Prize in Pædiatrics, awarded to Samuel Fry, of Louisiana.

The E. L. Tompkins Prize in Nervous Diseases, awarded to Samuel Fry, of Louisiana.

The H. L. E. Johnson Prize in Clinical Gynecology, awarded to Samuel Fry, of Louisiana.

The H. C. Yarrow Prize in Dermatology, awarded to Harry Hampton Donnally, of the District of Columbia.

#### PRIZE AWARDS, 1903.

The General Examination Prize of \$50, awarded to Harry Hampton Donnally, of the District of Columbia.

First honorable mention, Elmore E. Butterfield, of the District of Columbia.

Second honorable mention, Lewis Harvie Taylor, of Virginia.

Third honorable mention, Giles Burneston Cook, of Virginia.

The W. K. Butler Prize in Ophthalmology, awarded to Harry Hampton Donnally, of the District of Columbia.

The G. N. Acker Prize in Pædiatrics, awarded to Harry Hampton Donnally, of the District of Columbia.

The C. W. Richardson Prize in Laryngology and Otology, awarded to Lewis Harvie Taylor, of Virginia.

The H. C. Yarrow Prize in Dermatology, awarded to George E. Peterson, of Maryland.

#### SCHOLARSHIPS.

CORCORAN SCHOLARSHIPS.—By virtue of a liberal endowment from the late Mr. W. W. Corcoran, this Department is enabled to offer six free scholarships.

Two of these scholarships are open for competitive examination to the graduates of the several High Schools of the District of Columbia. These two scholarships are awarded to the two students whose averages are highest.

Two of the scholarships are open for competitive examination to graduates of any reputable High School or College (preference being given to those in the District of Columbia) who shall give satisfactory written evidence of pecuniary inability and certificates of good moral character and industry. These two scholarships are awarded to the two graduates whose averages are highest.

The remaining two scholarships are open for competitive examination to students who, though not graduates of any High School or College, yet give satisfactory evidence that they are fitted by previous education for the study of medicine, and at the same time give satisfactory written evidence of pecuniary inability and certificates of good moral character and industry. These two scholarships are awarded to the two students whose averages are highest.

**MEDICAL MISSIONARY SCHOLARSHIPS.**—Two Medical Missionary Scholarships will be given to those applicants who after one year's work are judged by the President of the University best qualified to enter upon the study of medicine for the purpose of becoming medical missionaries.

Applications for scholarships should be addressed to the Dean and filed not later than the first of September.

#### COURSES IN ARTS AND SCIENCES.

Students taking a full course for a degree may be admitted without additional fee, except matriculation and laboratory fees, to courses for which they are qualified, in the Department of Arts and Sciences.

#### FEES.

For the session of 1902-03 and thereafter the fee for each year will be \$110. This covers all expenses, all laboratories included, except breakage or loss of valuable apparatus in the laboratories, and a fee of \$1 for anatomical laboratory, to cover cost of solutions and materials used in keeping "parts" soft and fresh during dissection. Of the total fee for the year at least \$25 must be paid upon entrance, \$25 more before beginning dissection, \$25 more by the first of February, and the balance by April 15th. Each graduate pays a \$10 fee for diploma.

A deposit is required to defray the expense of apparatus destroyed in the chemical and other laboratories.

For *special* courses only, separate from the regular courses, the following fees will be charged:

Matriculation fee, payable only once . . . . .	\$5 00
Single tickets . . . . .	25 00
Practical Anatomy, by the Demonstrator . . . . .	15 00
Laboratory tickets, each, per year . . . . .	20 00

Payment of the fees is required in all cases.



The prices of board range from \$12 to \$30 per month, and rooms may be obtained for \$10 and upward per month, according to location, etc.

#### LOCATION OF NEW BUILDINGS.

The new Medical and Hospital Buildings are situated opposite a Government reservation, Nos. 1325 to 1335 H Street, N. W., within half a square of all lines of street cars going to every part of the city. The School and Hospital are separated by a wide lawn.

Students desiring catalogues or general information are requested to address

CHANNING RUDD, *Registrar,*  
*The Columbian University,*  
*Washington, D. C.*

#### STUDENTS.

##### *First Year.*

Name.	Legal address.	City address.
Paul Anderson.....	Ill.....	718 11th Street.
Julius Leopold Arntzen.....	Mo.....	1016 15th Street.
Samuel L. Battles.....	La. ....	606 F Street, N. E.
George W. Bone.....	Ohio ...	1225 L Street.
Nelson D. Brecht.....	D. C....	609 22d Street.
Clarence H. Buchanan.....	W. Va..	915 I Street.
C. W. Burket.....	Pa.....	1220 N Street.
W. Barry Burnell.....	Ore.....	1519 Kingman Street.
S. R. Catts.....	Va.....	Alexandria, Va.
Anderson A. Charles.....	Ind.....	907 M Street.
H. D. Chichester.....	Tex....	725 14th Street.
J. S. Clifford.....	N. H. ..	209 "Star" Annex.
Arthur G. Compton.....	D. C....	1121 Roanoke Street.
James D. Currie.....	Tex....	314 Mass. Ave., N. E.
Christian H. Dewey.....	Ill.....	37 Bates Street.
Meade R. Edmunds.....	Miss...	1217 K Street.
Edwin G. Evans.....	D. C....	27 8th Street, S. E.
C. Vivian Everett.....	Md.. ...	3411 Holmead Ave.
Frank E. Frazier.....	Wis....	236 N. J. Avenue.
George A. Fletcher.....	N. Y....	817 12th Street.
Wilbur F. Galeener.....	Ill.....	718 11th Street.

NAME.	Legal address.	City address.
Albert J. Gore .....	Md. ....	1528 I Street.
Ralph M. Goss .....	Ga. ....	1117 S Street.
James R. Gow .....	Ohio ...	122 D Street, N. E.
Charles V. Grant .....	Pa. ....	709 12th Street.
Kosciusko Hamilton .....	Tenn ...	1203 11th Street.
Wm. S. Hardesty .....	W. Va. .	The Ethelhurst.
Clarence A. Hartley .....	Ind. ....	1308 8th Street.
Roy C. Hefflebower .....	D. C. ...	915 N. H. Avenue.
D. Lee High .....	Md. ....	416 M Street.
R. A. Hooe, Jr. ....	Va. ....	1110 N. Y. Avenue.
Chas. H. Karr .....	D. C. ...	1452 Euclid Place.
Robert M. Kilgour .....	Mont. ...	1112 10th Street.
Geo. Kohlhaas .....	Pa. ....	1106 9th Street.
John Roger Laughlin .....	Pa. ....	1460 Corcoran Street.
Samuel C. Luckett .....	Va. ....	727 13th Street.
Herbert Z. Lund .....	Utah ...	606 N. C. Ave., S. E.
F. Patrick Machler .....	Ill. ....	1634 S Street.
Jeremiah G. Maupin .....	Va. ....	316 E. Cap. Street.
Larry B. McAfee .....	Ind. ....	1528 I Street.
Hiram McCollum .....	N. Y. ...	1134 Conn. Avenue.
Frank McLean .....	D. C. ...	735 13th Street.
Carroll S. Middleton .....	Md. ....	Berwyn, Md.
H. B. Montgomery .....	Ohio ...	230 Mass. Avenue.
J. S. Neate .....	Eng. ....	Army Med. Museum.
B. Brooks Nyce .....	Md. ....	1219 I Street.
Benjamin C. Perry .....	Md. ....	Kensington, Md.
John K. Pickett .....	Ga. ....	1734 Corcoran St.
John A. Ramey .....	Miss. ...	1423 Duncan St., S. E.
B. H. Ransom .....	Nebr ...	1015 L Street.
Benjamin Rush Rhees .....	D. C. ...	Treasury Dept.
Dillon Sheiry .....	D. C. ...	132 F Street, N. E.
William Hamilton Smith .....	D. C. ...	1314 Conn. Avenue.
S. H. Smith .....	Va. ....	Alexandria, Va.
Richard L. Spire .....	N. Y. ...	1120 C Street, S. E.
Earl C. Stevenson .....	Nebr ...	931 New York Ave.
Dallas G. Sutton .....	Pa. ....	921 19th Street.
Arthur N. Tasker .....	D. C. ...	126 C Street, N. E.
Phillip R. Terry .....	La. ....	1449 N Street.
J. Peterfield Trent .....	Va. ....	1300 Pa. Avenue.
Richard W. Wheat .....	Va. ....	239 Va. Avenue, S. E.
William E. Whiteside .....	W. Va. .	620 I Street.
Richard T. Williams .....	D. C. ...	1319 8th Street.
Frank Ernest Winter .....	Me. ....	U. S. Naval Hospital.
Carl W. Woods .....	Vt. ....	1109 H Street.
Robert J. Yates .....	Va. ....	735 13th Street.

*Second Year.*

NAME.	Legal address.	City address.
F. A. Allen.....	Minn....	1016 8th Street.
Chas. C. Ammerman.....	N. Y....	911 N. C. Ave. S. E.
Samuel D. Austin.....	Miss....	1000 M Street.
Herschel E. Baldwin.....	Ill.....	1710 F Street.
Kenneth F. Beale.....	Mass....	Branchville, Md.
B. M. Bean.....	N. H....	The Fredonia.
Robert A. Bennett.....	Md.....	Riverdale, Md.
G. W. Booth.....	Md.....	643 D Street.
William S. Broughton.....	Ill.....	Treasury Dept.
Ernest W. Brown.....	Conn....	1362 B Street, S. W.
Harry T. Brown.....	D. C....	Fort Myer, Va.
Rhoderic W. Browne.....	Mass....	1829 5th Street.
Edward W. Burch.....	Md.....	218 I Street, S. E.
D. P. Bush.....	Nebr....	1225 Mass. Ave., S. E.
Henry B. Bryan.....	Va.....	Alexandria, Va.
George H. Camp.....	Pa.....	801 E. Capitol Street.
John M. Chapman.....	Md.....	1317 Q Street.
Wayne F. Cowan.....	Wis....	1115 9th Street.
Walter L. Dent.....	Md.....	Hyattsville, Md.
M. C. Dollman.....	Va.....	807 9th Street.
William W. Elrod.....	Ind....	St. Elizabeth's, D. C.
Raymond A. Fisher.....	D. C....	505 B Street, N. E.
Thomas M. Foley.....	D. C....	147 Thomas Street.
J. Steele Forsythe.....	Miss....	1805 3d Street, N. E.
William J. French.....	Minn....	1133 24th Street.
Philip E. Garrison.....	N. J....	U. S. Marine Hosp'l.
Earle B. Graham.....	N. Y....	637 I Street.
C. S. Grayson.....	N. C....	428 1/2 M Street.
Chester C. Groff.....	Pa.....	1107 I Street.
Edward J. Gunning.....	Pa.....	907 Mass. Ave.
James E. Haggerty.....	N. Y....	73 1/2 R Street.
Tharos Harlan.....	Md.....	1229 10th Street, S. E.
Fred. M. Hart.....	N. Y....	Takoma Park, D. C.
Charles A. Harrison.....	Ill.....	1208 K Street.
John E. Hastings.....	N. Y....	Patent Office.
Samuel Carl Henning.....	N. Dak.	813 12th Street.
Le Roy W. Hickok.....	N. Y....	500 M Street.
Ross J. Hillegass.....	Pa.....	1328 New York Ave.
Josiah H. Holland.....	D. C....	Children's Hospital.
Armen G. Hovsepian.....	Armenia.	1004 H Street.
William B. Hudson.....	D. C....	U. S. Jail.
John W. Humphries.....	Va.....	St. Elizabeth's, D. C.
Frank H. Jett.....	Ind.....	Washington Asylum Hospital.



Name.	Legal address.	City address.
Dana Johannes.....	D. C....	Woodside, Md.
E. E. Jones.....	D. C....	1940 9th Street.
Glenn Irvine Jones.....	D. C....	2010 14th Street.
James I. Kearney.....	Pa. ....	951 Mass Avenue.
Adam Kemble . . . . .	Pa. ....	Soldiers' Home.
Albert B. Krudinier . . . . .	Iowa...	The Elsmere.
Emil Krulish . . . . .	Minn...	1203 M Street.
Frederick W. Kuehn . . . . .	Ind....	1129 5th Street.
Anthony J. Lanza.....	N. Y...	1232 13th Street.
William H. Littlepage.....	Ark....	1339 L Street.
James H. McConnell . . . . .	N. Y....	905 Florida Avenue.
F. L. Martine.....	N. J....	1008 K Street.
Robert Bruce Maxwell.....	Tenn...	1002 East Capitol St.
Arthur N. Meloy.....	Md....	Meadows, Md.
Guy S. Meloy.....	Md....	1311 30th Street.
Don F. Murphy.....	D. C....	911 T Street.
Joseph A. Murphy.....	D. C....	1103 10th Street.
Elmer S. Newton . . . . .	Mass...	610 East Capitol St.
H. Nutting . . . . .	N. Y....	209 A Street, S. E.
E. L. Osborne.....	Ga.....	813 12th Street.
C. A. Pfender.....	Tex....	1302 L Street.
Thomas W. Raison.....	Ky....	The Litchfield.
Frederick Repetti.....	D. C....	527 6th Street, S. E.
F. H. Rittenour.....	Va....	Alexandria, Va.
Ansey H. Robnett.....	Tex....	813 12th Street.
J. S. Rollins . . . . .	D. C....	702 F Street, N. E.
Charles R. Sanderson . . . . .	D. C....	638 A Street, S. E.
Edward W. Sawyer.....	Mass..	702 10th Street.
Harry B. Shaw.....	Wash...	1010 10th Street.
William E. Shea.....	Idaho..	911 M Street.
Arthur C. Stanley.....	Wis....	914 23d Street.
Charles F. Sterne.. . . .	D. C....	3009 P Street.
Thomas Stetson . . . . .	D. C....	2019 Portner Place.
George W. Stiles, Jr.....	Okla..	333 Indiana Avenue.
John A. Talbott, Jr.....	Md....	The Fredonia.
Henry H. Tallmadge, Jr.....	Pa.....	2924 14th Street.
F. H. Towner.....	D. C....	1316 7th Street.
Walter Gordon Trow . . . . .	D. C....	414 C Street, S. E.
Gerald Van Castle, I.L. M. . . . .	N. Y....	Century Building.
Franz C. Waldecker.....	Kans...	2835 15th Street.
Walter A. Warfield.....	Va.....	Alexandria, Va.
Frank C. Warman.....	Pa.....	1739 F Street.
Charles L. Waters.....	Md....	Washington Grove.
Marcus H. Watters.....	Vt....	227 N. J. Ave., S. E.
R. Thomas West. . . . .	Md....	Rockville, Md.

Name.	Legal address.	City address.
John J. Wharton .....	Va.....	1413 F Street.
Lawrence L. Whitney .....	N. Y....	736 3d Street.
Walter W. Wilkinson.....	Va.....	1906 16th Street.
Arthur H. Williams.....	Vt.....	726 17th Street.

*Third Year.*

Albert Allemann .....	Switzerland,	705 Q Street.
Grant S. Barnhart.....	Pa.....	810 11th Street.
H. Bernstein.....	N. Y....	1526 14th Street.
Hugh A. Brown.....	N. J....	121 A Street, N. E.
John R. Buck.....	Me.....	The Montgomery.
Heber Butts .....	Mo.....	817 15th Street.
William W. Christmas.....	N. C....	725 12th Street.
W. Earl Clark, Jr.....	Pa.....	1508 H Street.
H. Noble Crandall .....	Pa.....	131 N. C. Ave., S. E.
R. C. Dewey.....	Minn...	Marine Barracks.
Robert W. Frishkorn .....	Pa.....	1225 L Street.
James G. Fisher.....	Pa.....	1014 K Street.
Homer G. Fuller.....	Conn...	1615 Florida Avenue.
Julien Chisholm Gale. ....	Pa.....	Dist. Com. Office.
T. R. Gough.....	Md.....	College Park, Md.
L. H. Hanson.....	Wis....	1320 N. Y. Avenue.
Francis E. Harrington .....	Va.....	217 Del. Ave., N. E.
M. Earle Higgins.....	Md....	Boyd's, Md.
John A. Holmes .....	D. C....	1507 U Street.
M. W. Houghton .....	D. C....	2900 N Street.
Arthur L. Hunt.....	Me.....	The Westminster.
Charles W. Hyde.....	Ohio ...	1014 K Street.
Lawrence M. Hynson ...	D. C....	623 S. C. Ave., S. E.
Samuel A. Jones .....	Ohio ...	1909 13th Street.
A. C. Lewis.....	Va.....	1931 K Street.
Thomas Linville .....	N. C....	267 N Street.
J. Mortimer Lynch.....	Tex....	1302 L Street.
Ernest H. Maling.....	Me.....	917 I Street.
Herbert E. Martyn.....	D. C....	232 9th Street, S. E.
A. Monroe.....	Russia..	726 5th Street.
Frederick E. Montgomery.....	D. C....	2209 Wash'n Circle.
Arthur L. Murray.....	N. Y....	10 3d Street, N. E.
Luther C. Neill .....	Tenn. ..	725 12 Street.
Alfred C. Norcross .....	Pa.....	The Lincoln.
Egil T. Olsen.....	Ill.....	227 N. J. Ave., S. E.
William F. Patten.....	N. Dak.	1014 K Street.
Frederick C. Perry.....	D. C....	2128 L Street.
George Peterson .....	Md.....	735 13th Street.

## DEPARTMENT OF MEDICINE.

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Name.	Legal address.	City address.
Llewellyn Powell .....	Va.....	Alexandria, Va.
Milton H. Prosseri.....	D. C....	501 8th Street, S. E.
J. C. Pyles.....	Md....	Camp Springs, Md.
Harry S. Reger.....	Ohio...	1825 Q Street.
Miguel Roses.....	Spain...	The Olympia.
Robert C. Ruedy.....	Va.....	Garfield Hospital.
Guy S. Saffold.....	Md.....	The Victoria.
William Schulze .....	La.....	316 C Street.
George J. Sells.....	Tenn....	428½ M Street.
Roy E. Seitz.....	Ill.....	1013 L Street.
Lucien C. Smith.....	Va.....	Alexandria, Va.
William H. Syme.....	W. Va..	2106 18th Street.
J. Lawn Thompson.....	Md.....	Rockville, Md.
Felix Garcia de la Torre.....	Porto Rico,	1218 12th Street.
John E. Wellner.....	Pa.....	937 H Street.
Charles C. White.....	Ind.....	1529 Corcoran St.
Milton L. Worthley.....	Pa.....	936 New York Ave.
William G. Young.....	Tenn....	The Montgomery.

*Fourth Year.*

Eric A. Abernethy, M. D.....	N. C....	8 I Street.
Bathurst Brown Bagby .....	Va.....	631 8th Street.
Wilbur R. Brandenburg.....	D. C....	2335 18th Street.
Gilmer Brenizer.....	N. C....	1538 I Street.
E. George Brian.....	Md.....	The Montgomery.
Elmore E. Butterfield.....	D. C....	1521 T Street.
G. C. Caldwell, M. D.....	D. C....	927 New York Ave.
Harry C. Coburn, Jr., B. S.....	D. C....	2111 G Street.
Giles B. Cook.....	Va.....	3 Thomas Circle.
Charles W. Cuthbertson.....	N. C....	622 E Street.
Carl L. Davis.....	Mich...	1113 Dartmouth St.
Harry Hampton Donnally, A. M.....	Minn...	511 B Street, N. E.
Aurelia A. Dutari, B. S., A. B.....	Rep. of Colombia,	1313 K St.
Forrest F. Fadeley.....	Va.....	2023 N Street.
Emmett A. Fagin.....	Ohio...	319 Florida Avenue.
Arthur C. Fitch.....	N. Y....	1355 29th Street.
Frederick A. Fitch.....	Ky.....	154 Thomas Street.
W. Frank Galatzo.....	Md.....	221 8th Street, N. E.
Robert C. Gotta.....	Pa.....	818 N. J. Avenue.
Howard H. Graham.....	Ohio....	305 H Street.
John Henry Gunnell..	D. C....	1831 Kalorama Ave.
Richard C. Harley.....	Md.....	Rockville, Md.
Luther Haymond.....	Va.....	1201 N Street.
Charles Sumner Hawes, A. B.....	Mass...	1231 Harvard Street.
F. D. Hester.....	Va.....	Alexandria, Va.



Name.	Legal address.	City address.
Thomas C. Holloway.....	Ky.....	The Westover.
Zachariah E. House.....	Md.....	1102 E Street, S. E.
J. H. Hurst.....	Cal.....	918 18th Street.
Flavius T. Johnson.....	Mich...	1442 Florida Avenue.
Huron W. Lawson.....	Mich...	1122 N. H. Avenue.
Victor Lewis.....	D. C....	1325 H Street.
William J. Mallory.....	Va.....	1101 14th Street.
William E. Manville.....	Tenn...	1937 13th Street.
Carroll H. May.....	Va.....	Alexandria, Va.
William P. McKee.....	D. C....	Episcopal Hospital.
Robert Irving McNeil.....	Tenn...	1717 G Street.
Joseph Ernest Mitchell.....	Md.....	812 13th Street.
Timothy Francis Murphy.....	Me.....	The Westminster.
Carl V. Nyman.....	Ill.....	Columb. Univ. Hosp.
C. Arthur Oswell.....	N. Y....	1864 Wyoming Ave.
Custis R. Perry.....	Va.....	610 21st Street.
Wilbur M. Phelps, M. D.....	Va.....	917 E. Capitol Street.
James T. Prevatt.....	Ga.....	2823 14th Street.
Malvern H. Price.....	Va.....	1255 H Street, N. E.
William A. Quinn.....	D. C....	803 E. Cap. Street.
C. Eder Reed.....	Md.....	1206 T Street.
Thomas W. Schwab.....	Pa.....	216 N. Y. Avenue.
Maynard J. Simmons.....	Md.....	1114 11th Street.
Charles N. Slater.....	D. C....	1735 S Street
Dwight G. Smith, A. B.....	D. C....	Children's Hospital.
Harry T. Smith.....	Pa.....	Washing'n Barracks.
Edgar Snowden.....	Va.....	Alexandria, Va.
Edgar Speiden, Jr.....	D. C....	639 Elliott St., N. E.
Lewis H. Taylor.....	Va.....	1644 R Street.

*Special Students.*

George M. B. Bradshaw, M. D.....	Pa.....	Hyattsville, Md.
Hanx C. Jorgenson.....	N. Y....	Navy Yard.
J. B. H. Waring.....	Va.....	1830 Oregon Ave.
H. J. Warner.....	Ill.....	1304 W Street.
John P. H. Wilmuth.....	D. C....	1008 Ga. Ave., S. E.

*Recapitulation.*

First Year Students.....	66
Second Year Students.....	92
Third Year Students.....	56
Fourth Year Students.....	54
Special Students.....	5
Total.....	273

## Department of Dentistry.

### THE FACULTY.

- CHARLES W. NEEDHAM, LL. D.,  
President of the University.
- J. HALL LEWIS, D. D. S., Dean,  
Professor of Dental Prosthetics.
- HENRY C. THOMPSON, D. D. S.,  
Professor of Operative Dentistry.
- D. KERFOOT SHUTE, M. D.,  
Professor of Anatomy.
- EMIL A. DE SCHWEINITZ, M. D.,  
Professor of Chemistry.
- WILLIAM P. CARR, M. D.,  
Professor of Physiology.
- THOMAS A. CLAYTOR, M. D.,  
Professor of Materia Medica and Therapeutics.
- JONATHAN R. HAGAN, D. D. S.,  
Professor of Oral Surgery.
- W. F. R. PHILLIPS, M. D.,  
Demonstrator of Anatomy.
- JOHN B. NICHOLS, M. D.,  
Professor of Normal Histology.
- JAMES CARROLL, M. D.,  
Professor of Pathology and Bacteriology.
- WILLIAM H. TRAIL, D. D. S.,  
R. E. L. HACKNEY, D. D. S.,  
CHARLES R. RICE, D. D. S.,  
H. W. JOHNSON, D. D. S.,  
WILLIAM C. FISHER, D. D. S.,  
CHARLES B. KEEFER, D. D. S.,  
Demonstrators in Charge of Infirmary.

### NEW BUILDING.

The new building of the Department of Dentistry is now completed and occupied. This building is 50 feet by 144 feet,

five stories in height, of fire-proof construction, and with every facility for the instruction and comfort of the students. There are four large lecture halls, with modern heating and ventilating appliances. The laboratories for Chemistry, Histology, Physiology, Bacteriology, Pathology, and Anatomy are models of their kind, while the operative and prosthetic technic laboratories are thoroughly equipped for technic instruction.

The Dental Infirmary is 50 feet by 75 feet, on the third floor; in order to have an unobstructed light, it has large windows on three sides; there are adjoining prosthetic laboratories, separate lavatories for students and patients, and lockers sufficiently high to accommodate a dental engine. In fact, everything is provided to insure the comfort and convenience of all who occupy or visit this portion of the building.

Two courses of lecture, laboratory, and clinical work will be given during the year, the one beginning daily at 9.30 a. m., the other at 4.30 p. m. These are similar in every respect, with the same requirements for admission and graduation, and with the same instruction and the same instructors. The student may select either course or attend both without extra charge, within certain limitations.

#### ADMISSION.

The minimum preliminary educational requirement of this Department is a certificate of entrance into the third year of a high school or its equivalent. The preliminary examination will be placed in the hands of the State Superintendent of Public Instruction.

#### ADVANCED STANDING.

The following is considered as equivalent to one course in this Department: A diploma from a recognized medical school, or satisfactory evidence that the student has passed the first-year examination in some other reputable dental school.

The following is considered as equivalent to two courses in this Department: A diploma from a reputable dental school, or evidence of having passed the second-year examination in such a school.

#### COURSES OF INSTRUCTION.

The Regular Course of Lectures begins on October 1, 1903, and continues eight months.

The Introductory Lecture of the Course will be delivered by Dr. H. C. Thompson on the above date.

The courses of instruction extend through four years.



As no amount of scientific attainment can compensate for lack of manipulative skill, a large part of the student's time is devoted to actual practice in the Infirmary. The large and centrally located Dental building gives ample opportunities for such practice.

The operating-room fronts on one of the Government reservations, and thus has the full, unobstructed light so desirable in dental operations. It is furnished with all necessary appliances that will enable a student to acquire the knowledge of office practice, as well as a diversity of clinical experience.

A large, comfortable, and well-lighted Dental Laboratory is supplied with all the requirements for the successful practice of Prosthetic Dentistry, and lockers are available for the safe-keeping of instruments belonging to the students.

The extracting-room is separate from the others, and is fitted up for the proper administration of the various anaesthetics, under the immediate supervision of a demonstrator thoroughly skilled in their application.

Special attention is called to the thoroughness of the practical instruction in the infirmary, which is under the immediate supervision of Professor Lewis and Drs. Trail and Hackney, the Demonstrators in charge. They are in constant attendance during the entire term, directing and overseeing the operations of the students, who thus have the benefit of their many years of experience in Dental Practice.

The infirmary is open every week day for nine continuous months (being closed during the months of July, August, and September), during which time an abundance of clinical material is readily available. In fact, as many patients present themselves as can possibly be attended to by the students.

The student has, therefore, the privilege of thirty-six months' actual practice in the infirmary, during which time he may become proficient in all those operations which the dental surgeon is ordinarily called upon to perform in office practice.

This Department complies with all the requirements of the National Association of Dental Faculties and also with those of the National Association of Dental Examiners, in so far as the requirements of the latter do not conflict with those of the former.

## PROSTHETIC DENTISTRY AND METALLURGY.

PROFESSOR LEWIS.

In this department the principles involved in the construction of artificial substitutes are exhaustively considered, and

the lectures supplemented by practical demonstrations of the subjects mentioned.

In addition to the more commonly used vegetable bases for artificial teeth, the use of gold, silver, and platinum is thoroughly taught, and bridge work, and the construction of appliances for correcting oral irregularities, etc., are carefully considered.

The modes of preparation, properties, etc., of the metals and alloys of particular interest to the dentist receive special attention.

The instruction is thoroughly practical, with the purpose of preparing the student for the actual every-day practice of prosthetic dentistry.

#### OPERATIVE DENTISTRY, DENTAL ANATOMY, AND PATHOLOGY.

PROFESSOR THOMPSON.

This course embraces lectures on the special anatomy and physiology of the teeth. The origin, growth, and eruption of the teeth receive minute attention, and are illustrated as their importance demands.

The methods of treating, filling, and extracting teeth receive attention in the lecture-room, and are demonstrated clinically by gentlemen whose reputations are fully established as proficient operators. Extended consideration is given to Dental Pathology and Therapeutics.

#### CHEMISTRY.

PROFESSOR DE SCHWEINITZ.

The instruction in this department embraces:

A short discussion of the principles of Physics in their relation to Chemistry, the principles of chemical philosophy, and the laws of chemical combination.

A study of the elements, metallic and non-metallic; the preparation, properties, and reaction of their different compounds and their application in dentistry.

Organic Chemistry, with special attention to those organic compounds that are of practical use.

Laboratory instruction in the determination of acids and bases, analyses of alloys, etc.

## PHYSIOLOGY.

PROFESSOR CARR.

The subject is fully covered by a two years' course of lectures, and these lectures are so illustrated by modern diagrams, models, and experiments as to make them clear in every detail. Emphasis is given to those truths that have a known practical value.

## MATERIA MEDICA AND THERAPEUTICS.

PROFESSOR CLAYTOR.

Instruction in this department extends through the first two years, and embraces:

The study of crude drugs and their preparations, and the art of prescribing.

The physiological action of drugs in the human system.

The practical application of drugs and other therapeutical agencies to the prevention and cure of diseases and the relief of suffering, together with their antidotal relations to poisons.

The subject is taught by means of lectures, recitations, and blackboard illustrations, and is made practical to as great a degree as is compatible with a sufficiently thorough understanding of its principles.

In connection with this chair is a pharmaceutical laboratory, well equipped with modern appliances, in which are taught the making of typical preparations of the Pharmacopœia, prescription writing, and the compounding of prescriptions.

## ANATOMY.

PROFESSOR SHUTE.

This course of lectures is arranged with the view to render the didactic instruction in anatomy as full and complete as the limits of the session will allow.

The lectures are illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciop-ticon also is constantly employed to present photographic views of many regions of the body.

Public oral examinations are conducted by the lecturer from time to time.

The prosectors prepare the subject for the lecturer.



The Demonstrator of Anatomy and his assistants give their personal attention to the students in the dissecting-room.

*Practical Anatomy.*

The dissecting-room is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied free of charge. The room is open during the day and at night until 11 P. M., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who, with his assistants, is present at stated hours to give his personal attention to the students and to instruct his classes in their dissections.

ORAL SURGERY.

PROFESSOR HAGAN.

A full course of lectures upon this subject is given, and arrangements have been made for clinical demonstrations in the Infirmary, in order to teach more thoroughly this interesting branch of general dentistry.

HISTOLOGY.

PROFESSOR NICHOLS.

The course in Histology consists in a systematic presentation of the subject of the minute anatomy of the various parts of the body, especial attention being devoted to the histology of the teeth and neighboring structures. The subject is presented partly by systematic lectures, and more especially by the practical study by the individual students of actual specimens under the microscope. The methods of preparation of microscopical specimens are presented and practiced in the laboratory. The projection microscope, which affords valuable aid in illustrating and presenting the subject, is constantly used.

BACTERIOLOGY.

PROFESSOR CARROLL.

The course is begun with a consideration of the principles involved in the process of sterilization by dry and moist heat,

the relative value and mode of application of each, and an explanation of the construction of the apparatus employed for the purpose. The use and construction of the thermostat is taken up at the same time and the student taught how he can dispense with these costly appliances in emergencies.

The composition and modes of preparation of the various nutritive media are next considered, working formulas given, and the students required to prepare them at least once in the laboratory. This is followed by a discussion of bacteria as a class, their position in the biological world, their classification, distribution, and the general and special characters that belong to them.

After this preparatory training the various methods in use for the isolation and study of bacteria are taught by practical demonstration and practiced by the students, after which the most important pyrogenic organisms are studied in detail, giving special attention to those found in the nasal and oral cavities.

The aim of the course is chiefly to afford the students an opportunity to become practically familiar with bacteriological working methods, and to enable them to isolate and identify the bacteria present in suppurative processes, as well as to comprehend intelligently the references to micro-organisms in the current professional literature of the day.

#### TEXT-BOOKS AND WORKS OF REFERENCE.

The works first named and in *italics* are preferred.

ANATOMY.—Gerrish, *Gray's*, Holden's Manual of Dissection.

PHYSIOLOGY.—*Yeo's* or Kirke's Physiology.

CHEMISTRY.—Simon's, Fowne's, or Mitchell's Chemistry.

MATERIA MEDICA.—*H. C. Wood's Therapeutics*; National Dispensatory; Eades' Therapeutics.

PROSTHETIC DENTISTRY.—*The American Text-book of Prosthetic Dentistry*; Essig's Dental Metallurgy.

OPERATIVE DENTISTRY.—*Harris' Principles of Practice*; Tome's Dental Anatomy and Surgery; Taft's Operative Dentistry; American System of Dentistry—Litch; Gould's Medical Dictionary.

ORAL SURGERY.—Marshall's Oral Surgery.

### GRADUATION.

Candidates for graduation must have attended four full courses of lectures, each of eight months' duration, and four courses of Clinical Instruction in this Department, during the regular winter term and in separate years, with the exceptions noted below. Students are examined at the end of the regular course upon all subjects taught them during that course. Students may go up for examination only in the spring and upon the dates regularly selected for that purpose. Should the student fail in his examination in the spring, he may be reëxamined in the fall. All fees must be paid and Infirmary requirements complied with before the student may present himself for examination.

Students must enter before, or within ten days after, the opening lecture of the regular winter course. They may register at any time during the nine months' Infirmary course, and thus begin Infirmary practice at once upon payment of twenty-five dollars, which amount will be deducted from their tuition fees for the succeeding regular term.

The candidate for graduation must be examined upon all subjects taught in this Department, with exceptions noted above, and before the examination he must perform operations upon the natural organs in the Infirmary, and present the Museum a well constructed specimen of dental mechanism made by himself in the Dental Laboratory of the University.

In addition to the above requirements, the moral character and habits of the candidate, his industry, and diligent attendance will be taken into consideration. Notable negligence, immorality, or habitual absence from the lectures will preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. This reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

The student also, during and between the sessions, must comply with the State laws regulating the practice of Dentistry, and act in accordance with the recognized code of ethics of the dental profession.

Candidates for graduation in this Department who desire to obtain a medical degree thereafter may be admitted to the medical examination on the primary branches at the termination of their second dental course, provided that, one month before the spring examinations, they give to the Dean written notice of



their intention, and provided also that they have complied with the requirements of the Department of Medicine as regards Dissection, the study of Histology, etc.

The degrees are conferred by The Columbian University, incorporated by act of Congress of the United States.

#### PRIZES.

**FACULTY PRIZE.**—A prize will be given by the Faculty to the graduate passing the best examination in all branches and having the best Infirmary record.

##### PRIZE AWARD, 1902.

Faculty Prize awarded to Thomas Locke Rust, of Virginia.  
Honorable mention, George W. Cox, Jr., of the District of Columbia.

##### PRIZE AWARD, 1903.

Faculty Prize awarded to Cæsare Louis Constantini, of the District of Columbia.

Honorable mention, Ernest R. Hagan, of Virginia, and John W. Shaw, of Iowa.

#### COURSES IN ARTS AND SCIENCES.

Students taking a full course for a degree may be admitted without additional fee, except matriculation and laboratory fees, to courses for which they are qualified, in the Department of Arts and Sciences.

#### FEES.

First Year . . . . .	\$100 00
Second Year . . . . .	100 00
Third Year . . . . .	100 00
Fourth Year . . . . .	110 00

The above includes all the tuition expenses. There are no extras whatever. The Dissection Material, Chemicals, Instruction in the Histological, Pharmaceutic, and Chemical Laboratories and Dental Infirmary are all furnished to the students free of charge.

Each student must furnish his own books and dental instruments.

The student is required to make a payment of twenty-five dollars upon registering, and twenty-five dollars additional

must be paid before he may avail himself of Laboratory and Infirmary instruction.

The prices of board and all other personal expenses are as reasonable in Washington as in other large cities.

#### LOCATION.

The new Dental and Medical Building is situated opposite a Government reservation, at No. 1325 H Street, N. W. The University Hospital Buildings, 1333 and 1335 H Street, N. W., are within half a square of all lines of street cars going to every part of the city.

The Dean may be seen personally at 1023 Vermont avenue, on any week day, from 3 to 4 p. m., and also at the Dental Building, 1325 H Street, N. W., on Monday, Wednesday, and Friday of each week, at 4 p. m.

For catalogues or general information regarding the Department of Dentistry, application may be made to

CHANNING RUDD, *Registrar,*

*The Columbian University,*

*Washington, D. C.*

## STUDENTS.

*First Year.*

Name.	Legal address.	City address.
* Walter R. Barnesby.....	Ill.....	409 6th Street, S. E.
Lewis M. Bartlett.....	Mass....	118 Mass. Ave., N. E.
John M. Brinton.....	Pa.....	901 M Street.
W. Earle Butler.....	W. Va..	1143 N. H. Ave.
George S. Catts.....	Va.....	806 20th Street.
Seth E. Cole.....	Vt.....	656 G Street, N. E.
Ralph S. Correll.....	Ohio....	631 N. C. Avenue.
George A. Fletcher.....	N. Y....	Y. M. C. A.
Joseph William Handy.....	Mo. ....	716 7th Street.
Saul Jaffe.....	Russia..	803 A Street, S. E.
Otto Kuehn.....	Md.....	1129 5th Street.
William F. Lemon.....	D. C....	509 E Street.
John T. Lewis.....	Md.....	308 9th Street, N. E.
Samuel E. Love.....	Minn....	1303 Corcoran Street.
Robert W. Lowe, Jr.....	Mass....	2107 K Street.
Frederick D. Maphis.....	Va.....	627 Scott Avenue.
Ralph W. de Mass.....	Mich....	1202 N. Cap Street.
Orlyn S. Phillips.....	Neb....	2017 H Street.
Joseph W. Pollock.....	Ind.....	413 G Street.
Walter E. Rogers.....	Texas....	813 12th Street.
Gustavus W. Rose.....	Mich....	1002 Mass. Avenue.
* G. H. Rowdybush.....	D. C....	941 F Street.
J. C. Schumacher.....	Mo.....	1008 I Street.
* Joseph L. Smith .....	Pa. ....	701 C Street, S. W.
Robert L. Sproul.....	Ohio....	1004 11th Street.
W. B. Streetman.....	Texas ..	412 6th Street.
* Wm. D. Washington.....	Va.....	1110 N. Y. Avenue.

*Second Year.*

Chas. T. Bassett.....	N. Y....	1015 L Street.
Chas. L. Bovee.....	N. Y....	1404 H Street.
Wm. G. Brownlow.....	Tenn....	The Farragut.
Nathaniel W. Chapman.....	Md.....	1317 Q Street.
Claude B. Cooksey.....	D. C....	225 12th Street, S. W.
* Austin R. Darling.....	N. Y....	4th and East Capitol.
John K. Duncan.....	Iowa....	1236 C Street, N. E.
W. James Elzey.....	Md.....	818 6th Street.
J. Arthur Fluckey.....	Ill. ....	1126 10th Street.

\* Students indicated with an asterisk have not been in regular attendance.



Name.	Legal address.	City address.
Wm. E. Francis.....	D. C....	708 A Street, N. E.
Louis S. Glenn.....	N. Y....	1109 H Street.
Frank H. Jett.....	Ind....	Wash. Asylum Hosp.
Chas. F. Keen.....	Va.....	Chevy Chase, Md.
L. V. B. Marschalk .....	Ky. ....	1916 I Street.
Wm. A. Marschalk, Jr.....	Fla....	917 F Street, N. E.
A. L. Miller.....	N. Y. ...	Takoma Park.
H. A. Moore. ....	W. Va..	1016 15th Street.
F. G. Murray.....	D. C....	211 6th Street, N. E.
Frank E. Neely.....	Ind....	222 1/2 Quincy St., N. E.
* L. F. Orrison.....	Va.....	1226 B Street, S. W.
Julian Pack.....	Pa.....	Orme Flats, 10 & E.
* Harry B. Peffers.....	Ill....	1307 R Street.
Virgne W. Potter.....	Wis....	144 C Street, N. E.
Arthur M. Trivett.....	N. C....	1238 G Street, N. E.
T. Roland Wilkerson.....	Va.....	1121 1/2 4 1/2 St., S. W.
Joseph H. Wood.....	D. C....	1133 6th Street.

*Third Year.*

E. F. Belford.....	Ohio....	1911 G Street.
Ernest Meredith Butz.....	Pa.....	510 8th Street, S. E.
Cæsare Louis Constantini.....	D. C....	411 Mass. Avenue.
B. Avery Gardner.....	N. Y....	157 Heckman St., S. E.
Wilmer Burton Greene.....	Me ....	16 4th Street, N. E.
Ernest R. Hagan.....	Va.....	612 13th Street.
C. H. Harris.....	Md. ....	Rockville, Md.
Samuel B. Harris.....	Bogota, Col.,	1325 H Street.
* C. A. Humeston.....	Conn. .	620 I Street.
Fred. C. Perry.....	D. C....	2128 L Street.
John W. Shaw.....	Iowa....	1325 H Street.
Ernest E. Smith.....	D. C....	331 F Street.
C. O. Watt.....	Mich....	1325 H Street.
B. P. Wilson.....	Md. ....	Rockville, Md.

*Recapitulation.*

First Year Students.....	27
Second Year Students.....	26
Third Year Students.....	14
Total .....	67

## Department of Law.

### THE FACULTY.

- CHARLES W. NEEDHAM, LL. D., President of the University,  
Professor of Trusts and Trades Unions.
- HENRY ST. GEORGE TUCKER, LL. D., Dean,  
Professor of Equity Jurisprudence and Sources and Classification of Law.
- Hon. JOHN M. HARIAN, LL. D., (Associate Justice of the Supreme Court of the United States),  
Professor of Constitutional Law, Domestic Relations, Torts, and Personal Property.
- Hon. DAVID J. BREWER, LL. D., (Associate Justice of the Supreme Court of the United States),  
Professor of International Public Law.
- Hon. WILLIAM A. MAURY, LL. D., (Member of the Spanish Treaty Claims Commission, Some time Assistant Attorney General of the United States),  
Professor of Federal Procedure, and Insurance.
- WILLIAM G. JOHNSON, LL. M., (Of the Washington Bar),  
Professor of Common Law Pleading and Practice.
- MELVILLE CHURCH, LL. M., (Of the Washington Bar),  
Professor of the Law of Patents.
- Hon. STANTON J. PEELLE, LL. D., (Judge of the United States Court of Claims),  
Professor of the Law of Partnership, Agency, and Bailments.
- WALTER C. CLEPHANE, LL. M., (Of the Washington Bar),  
Professor of Equity Pleading and Practice, Organization of Corporations, and Judge of the Moot Court.
- EDWIN C. BRANDENBURG, LL. M., (Of the Washington Bar),  
Professor of Bankruptcy and Insolvency.
- ARTHUR PETER, LL. M., (Of the Washington Bar),  
Professor of Evidence, Wills and Administration, and Judge of the Moot Court.
- CHANNING RUDD, D. C. L., (Of the Washington Bar),  
Professor of Oratory and Assistant Professor of the Sources, Classification, and Elements of Law.

- HENRY P. BLAIR, LL. M., (Of the Washington Bar),  
Assistant Professor of the Law of Torts, Personal Property,  
and Domestic Relations.
- JOHN PAUL EARNEST, A. M., LL. M., (Of the Washington Bar),  
Professor of Criminal Law, Criminal Procedure, and Judge  
of the Moot Court.
- WILLIAM REYNOLDS VANCE, A. M., Ph. D., LL. B.,  
Professor of Real Property, Contracts, Corporations, and  
Commercial Paper.
- ROBERT M. HUGHES, A. M., (Of the Norfolk, Va., Bar),  
Professor of Admiralty Law and Procedure.
- HON. HANNIS TAYLOR, LL. D., (Formerly Minister to Spain),  
Lecturer on the History of English Law.
- HON. FREDERICK I. ALLEN, (Commissioner of Patents),  
Lecturer on Substantive Patent Law.
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## \* COURT OF APPEALS.

- WILLIAM F. MATTINGLY, LL. D.,  
Chief Justice.
- ANDREW B. DUVALL, LL. B.,  
JOHN B. LARNER, LL. B.,  
Associate Justices.
- 

- WILLIAM REYNOLDS VANCE, A. M., Ph. D., LL. B.,  
Librarian of the Law Library.
- EDGAR BUXTON,  
Assistant Librarian.
- ELMER L. MOULDEN,  
Assistant Librarian.
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This Department was established in 1865, and it is the oldest school of law in Washington. Men occupying the highest positions in the profession are in its faculty, personal contact with whom is a source of inspiration to every student.

At the June meeting, 1903, the Board of Trustees of the University, feeling the necessity of having some permanent professors in this Department who will devote their whole time to the work in order more effectually to carry out the broad scheme



of legal education as laid down by them, elected to the Dean-ship of the Departments of Law, Jurisprudence and Diplomacy Henry St. George Tucker, LL. D., of Virginia. Mr. Tucker was for five years Professor of Constitutional Law and Equity in Washington and Lee University, and for several years the Dean of the Law School of that institution. He will teach the subjects of Equity Jurisprudence, Sources and Classification of Law, and Comparative Constitutional Law.

At the same meeting of the Board, Professor William Reynolds Vance, A. M., Ph. D., LL. B., the present Dean of the Law School of Washington and Lee University, was elected Professor of Law, and will teach the subjects of Real Property, Contracts and Corporations. Professor Vance has for six years been Professor of Law, and has been most successful in teaching the subjects assigned him.

Other permanent professors will be elected in the future. With these additions it is believed that these schools at the National Capital will be without a rival.

### LAW LECTURE HALL.

Law Lecture Hall is devoted exclusively to the Departments of Law, Jurisprudence and Diplomacy. It adjoins University Hall, corner Fifteenth and H streets, two blocks from the White House. This new building contains three commodious lecture halls, two moot-court rooms, a large and well lighted library-room, and administrative offices. The building is lighted by electricity, handsomely furnished, and well equipped and adapted to the work for which it is designed.

### ADMISSION.

Applicants for admission to the First-Year class as candidates for a degree must be at least eighteen years of age, and must have had an education equivalent to a high school course.

The educational requirement may be satisfied by a presentation of certificates or by an examination before the Dean. Application blanks will be furnished by the Registrar of the University.

The regular course of study embraces three years. There is also a special course of one year in Patent Law.

A student may be admitted to advanced standing upon furnishing evidence satisfactory to the Dean that he has spent not less than three months' time, and regularly pursued courses of study in a recognized law school or in a law office under the direction of a practicing attorney in good standing; and in all

such cases he shall file a certificate of the facts, and if such certificate be from a law school he may receive credit for the time he has attended such school and for the studies in which he has passed successful examinations. If the certificate be from a practicing attorney, the student may receive a reasonable credit for time, but shall take examinations in all the studies pursued and for which he asks credit.

The annual session begins on the Monday nearest the first day of October and continues until the Wednesday nearest the first day of June following.

The lectures will be delivered between the hours of 4.30 and 6.30 in the afternoon. Beginning October 1, 1903, class-room work from 9 until 11 a. m. will be given to first-year students desiring it.

The register will be opened for the enrollment of students on the first day of September.

The University, in October, 1898, increased the regular course of study for candidates for the degree of Bachelor of Laws to three years. The work has been largely increased with a view of giving students that thorough knowledge of the general rules of law and practice which will fit them for the Bar of any State. Professors will conduct the study of each subject by lectures, required courses of reading, the study of cases, and class conferences. The study of special cases upon the various subjects treated and the Moot-Court work have been largely increased, thus bringing before the student the modern applications of law by the courts of the country.

Special instruction and practical work are given the students in the preparation of Contracts and Wills, and in the organization of Corporations. This work is carefully examined and returned to the student, with suggestions by the instructors in charge of the work.

There will be ten hours per week of class-room work in each year of the course.

## COURSES OF INSTRUCTION.

### *First Year.*

After preliminary lectures by the Dean on the study of law, the courses are as follows:

Sources and Classification of Law. Professor TUCKER. One hour, one-half year.

History of English Law. Professor TAYLOR. \*One hour.

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\* Unless otherwise stated, hours per week throughout the year.



Constitutional Law. Professor HARLAN. One hour.

Torts. Professor HARLAN. One hour, one-half year. "*Pollock on Torts*" and *special cases*.

Contracts. Professor VANCE. Lectures and Conferences. Two hours. "*Clark on Contracts*" and "*Hopkins' Cases on Contracts*."

Criminal Law. Professor EARNEST. Lectures and Conferences. One hour. "*Clark's Criminal Law*."

Partnership, Agency, and Bailments. Professor PELLE. Lectures and Conferences. One hour. "*Burdick on Partnership*" and "*Huffcutt on Agency*."

Domestic Relations. Professor HARLAN. One hour, one-half year. "*Brown on Domestic Relations*" and *special cases*.

Commercial Paper. Professor VANCE. Lectures and Conferences. One hour, one-half year. *Special cases*.

Personal Property. Professor HARLAN. One hour, one-half year. "*Smith on Personal Property*" and *special cases*.

Class Conference—Torts, Domestic Relations, and Personal Property. Asst. Professor BLAIR. One hour.

Class Conference—Sources, Classification, and Elements of Law. Asst. Professor RUDD. One hour. "*Robinson's Elementary Law*."

Class Conferences from 9 until 11 a. m. in the following subjects (attendance optional): Contracts, Personal Property, Commercial Paper, Sources, Classification, and Elements of Law.

First year examinations will be held at the conclusion of each course in the following subjects: Sources, Classification, and Elements of Law; Torts; Contracts; Criminal Law; Partnership; Agency; Bailments; Domestic Relations; Commercial Paper; and Personal Property. The required courses upon which examinations will be held will be given from 4.30 until 6.30 in the afternoon.

First year instruction will be carried on by topical lectures, supplemented by carefully arranged courses of reading and the study of selected cases which state and illustrate the law. There will be class conferences upon the lectures, and free questioning by students is encouraged. Quiz classes may be formed, and every facility will be afforded the student to aid him in a thorough understanding of the subjects studied.



*Second Year.*

Common Law Pleading and Practice. Professor JOHNSON. Lectures and Conferences. One hour. "*Stephen on Pleading*" (Tyler) and "*Cox's Common Law Practice*."

Evidence. Professor PETER. Lectures and Conferences. Two hours. "*Greenleaf on Evidence*" and *special cases*.

Equity Jurisprudence. Professor TUCKER. Lectures and Conferences. One hour. *Bispham*.

Corporations. Professor VANCE. Lectures and Conferences. One hour. *Clark and Dillon*.

Constitutional Law. Professor HARLAN. One hour. "*Story's Commentaries on the Constitution*."

Real Property. Professor VANCE. Lectures and Conferences. Two hours. *Book II of Blackstone, special cases, and notes*. Other text-books to be announced.

Contracts. Professor VANCE. Lectures and Conferences. Two hours. *Special phases of contract law, with illustrative cases*.

Insurance (Fire, Life, and Marine). Professor MAURY. Lectures and Conferences. One hour, one-half year. "*Wambaugh's Cases on Insurance*."

Second year examinations will be held at the conclusion of each course in the following subjects: Common Law Pleading and Practice; Evidence; Equity Jurisprudence; Corporations; Constitutional Law; Real Property; Contracts; and Insurance.

Special courses of reading in text-books and selected cases will be assigned by the professors, and cases will be used in the lectures to illustrate the subject under consideration. Practical work in the preparation of contracts and written obligations of various kinds will be given to students by the professors, and this work carefully examined. The second-year students will be divided into sections, and there will be discussions and papers upon the subjects gone over in the first and second years' study.

*Third Year.*

Equity Pleading and Practice. Professor CLEPHANE. Lectures and Conferences. One hour, one-half year. "*Shipman on Equity Pleading*" and *special cases*.

Federal Procedure. Professor MAURY. Lectures and Conferences. One hour, one-half year. "*Curtis' Jurisdiction of*

*United States Courts*" and "*Mauzy's Federal Jurisdiction and Procedure*."

Criminal Procedure. Professor EARNEST. Lectures and Conferences. One hour, one-half year. "*Clark's Criminal Procedure*."

Equity Jurisprudence. Professor TUCKER. Lectures and Conferences. One hour. *Special cases*.

Bankruptcy and Insolvency. Professor BRANDENBURG. Lectures and Conferences. One hour. "*Brandenburg on Bankruptcy*."

Real Property. Professor VANCE. Lectures and Conferences. Two hours. *Book II of Blackstone, special cases, and notes*. Other text-books to be announced.

Trusts and Trustees. Professor ———. Lectures and Conferences. One hour.

Organization of Corporations. Professor CLEPHANE. Lectures and Conferences. One hour, one-half year.

Wills and Administration. Professor PETER. Lectures and Conferences. One hour, one-half year.

Admiralty Law and Procedure. Professor Hughes. Lectures and Conferences. One hour, one-half year.

Organization of Trusts and Trades Unions. Professor NEEDHAM. Lectures and Conferences. One hour, one-half year.

Substantive Patent Law. Professor ALLEN. Lectures and Conferences. One hour, one-half year.

Moot Courts. Professors CLEPHANE, PETER, and EARNEST. Six hours.

Third-year examinations will be held at the conclusion of each course in the following subjects: Equity Pleading and Practice; Federal Procedure; Criminal Procedure; Equity Jurisprudence; Bankruptcy and Insolvency; Real Property; Trusts and Trustees; Organization of Corporations; Wills and Administration; and Admiralty Law and Procedure. The grades received in Moot Court work are counted in determining the student's final standing.

The third-year course will also be carried on by special lectures and the study of selected cases; special courses of reading will be assigned, and each student in the third year will take part in the preparation of cases in the Moot Courts, law and equity, upon such a statement of facts as a client would

give to a lawyer in active practice, the cases to be carried through from the commencement of the action to a final hearing, according to rules of procedure prepared by the professors in charge of the Moot Courts; cases may be taken by appeal to the Appellate Moot Court. This gives the student practice and drill in determining what actions will lie upon a given state of facts, what defenses may be interposed, and the various steps in the conduct of cases in court. These courts will be presided over by professors and lawyers from the Washington Bar.

#### GRADUATE COURSE.

##### LEADING TO THE DEGREE OF MASTER OF LAWS.

###### *Fourth Year.*

##### 1. Required Course.

Constitutional Law of the United States. Professor HARLAN. One hour. *Story on the Constitution.*

Comparative Constitutional Law. Professor TUCKER. One hour.

International Public Law. Professor BREWER. One hour. *Hall's International Law.*

International Private Law. Professor TAYLOR. One hour, one-half year. *Minor's Conflict of Laws.*

Transportation and Interstate Commerce Law. Professor NEEDHAM. One hour.

Roman Law. Professor HOWE. One hour, one-half year. *Howe's Studies in the Civil Law.*

Class Conference, Roman Law. Mr. HAU. One hour.

##### 2. Elective Course.—In addition to the required courses, the student must select and pursue four hours per week from the following courses:

Advanced Procedure (Pleading, Practice, and Evidence) and Office Practice. Practical instruction and exercises in the preparing of legal papers. Professor CLEPHANE. Two hours.

Moot Courts. Professors CLEPHANE, PETER, and EARNEST. Two hours.



Appellate Moot Court. The students in turn prepare and argue appellate cases, and may be required to write opinions. Briefs and opinions are carefully examined, criticised, and graded by the professors in charge. Judges MATTINGLY, LARNER, and DUVALL. Two hours.

Comparative Politics and Political Geography. Lectures and Conferences. Professor SWISHER. Two hours.

Fourth year examinations will be held at the conclusion of each course in the following subjects: Constitutional Law; Comparative Constitutional Law; International Public Law; International Private Law; Transportation and Interstate Commerce Law; and Roman Law. In addition to these required examinations, the grades received in Moot Court, or other elective courses, are counted in determining the student's final standing.

#### PATENT LAW COURSE.

A special course in Patent Law and Patent Law Practice will be conducted by Professor Church, giving thorough preparation to those who contemplate entering that department of jurisprudence. This course covers a period of eight months, with two lectures or sessions of the Moot Court each week. The degree of Master of Patent Laws will be conferred upon those who pass satisfactory examinations at the close of the term. Only graduates in law or members of the bar are eligible to the degree, but any person qualified to profit by the instruction offered will be admitted to the course.

A special course of lectures on Substantive Patent Law is delivered by Hon. Frederick I. Allen, the Commissioner of Patents.

#### ORATORY.

This course is in charge of Professor Channing Rudd, and is designed to give practical, common-sense training in oratory and public speaking. By culture the voice is made rich, powerful, and flexible, the body trained to aid in the expression of thought and emotion, and the mind trained to quick, clear, and logical thinking. The course includes voice culture, chest cultivation, deep breathing, gesticulation, self-control, extemporaneous speaking, argumentation, debating, and brief drawing.

Opportunity for the practical application of the principles and exercises taught is afforded by the Junior Congress of the

United States. The Congress is composed of members of the oratory classes and is modeled after the National Congress, being a legislative body in work and organization.

#### COURSES IN ARTS AND SCIENCES.

Students taking a full course for a degree may be admitted, without additional fee, except matriculation and laboratory fees, to courses for which they are qualified, in the Department of Arts and Sciences.

#### EXAMINATIONS.

Written examinations will be required upon each subject specified in the courses and will be given at the conclusion of each subject. At the close of the third year a general review and examination may be required. The standing of the student in the several examinations and in the class conferences and his legal attainments, the regularity of his attendance, and his character will determine his right to the degree.

#### DEGREE OF BACHELOR OF LAWS.

The degree of Bachelor of Laws will be conferred upon students who shall have passed satisfactory examinations upon the subjects required in the entire course of three years and whose attendance and conduct have been satisfactory to the Faculty.

#### DEGREE OF MASTER OF LAWS.

The degree of Master of Laws will be conferred upon students who shall have successfully completed the work of the fourth year and whose attendance and conduct have been satisfactory to the Faculty.

#### PRIZES.

A prize of \$100, called "The Parker Prize," in honor of its donor, Hon. Myron M. Parker, is awarded each year to the student who attains the highest general average in examinations during the full three years' course for the degree of Bachelor of Laws.

A prize offered by the Edward Thompson Company, of a set of the *Encyclopædia of Law*, first or second edition, or a set of the *Encyclopædia of Pleading and Practice*, is awarded each

year to the regular law student who shall write the best thesis on some legal subject to be assigned by the Faculty.

Three prizes—one of \$40, one of \$30, and one of \$20—are annually given to the respective authors of the best three essays handed in by such members of the Third-Year Class as shall compete for them and shall pass a successful examination.

A prize of \$25 in gold, called the "David S. Hendrick Memorial Prize in Insurance Law," in honor of Mr. David S. Hendrick, will be awarded each year to the student in the Second-Year Class who writes the best essay upon some question in Insurance Law which will be selected and approved by the Faculty.

A prize of \$25 in gold, offered by Mr. Fritz von Briesen, called the "Ellsworth Prize," is awarded for the best work done in the Patent Law Course by a student receiving the degree of Master of Patent Laws.

Two prizes for excellence in debate are awarded by the Debating Society.

#### PRIZE AWARDS, 1903.

M. M. Parker Prize . . . . .	Jason Waterman.
Edward Thompson Company Prize . . . . .	Arthur M. Churchill.
First Essay Prize . . . . .	Hubert Bruce Fuller.
Second Essay Prize . . . . .	Frank S. Whitcomb.
Third Essay Prize . . . . .	Jess Bradford Hawley.
Hendrick Insurance Prize . . . . .	Benjamin Irving.
Ellsworth Prize . . . . .	Frederick A. Tennant.
First Debater's Prize . . . . .	Milton M. Dearing.
Second Debater's Prize . . . . .	Leslie C. Fuller.

#### LAW LIBRARY AND READING ROOM.

##### IN CHARGE OF PROFESSOR VANCE.

A well-equipped working library, comprising 4,000 volumes, is open to the students in Law Lecture Hall from 9 a. m. to 10 p. m. Competent librarians are in charge and will give students assistance in looking up subjects and in the use of books.

The library contains the standard text-books, the West Reporter system of Federal and State decisions complete, State Reports, the English Common Law and Chancery Reports, Encyclopædias of Law, Digests, reference books, and current law publications.

Adjoining the Library is a conversation room for students, affording opportunity for consultation.



In addition to these facilities, the students have free access to the great Congressional Library and other public libraries in the city.

#### ADMISSION TO THE BAR.

By the rules of the Supreme Court of the District of Columbia, applicants for admission to the Bar are required to have studied law for three years under the direction of a competent attorney, but by those rules the course in the Department of Law of the University is regarded as discharging this requirement.

#### FEES.

The tuition fee for the regular course is one hundred dollars a year; this to be paid in advance, monthly or quarterly, at the option of the student. The tuition fee for the Patent Law course is forty dollars; for the course in Oratory fifteen dollars. A charge of ten dollars in all cases is made for diplomas, and two dollars for library fee each year.

Board and lodgings, including heat and light, can be obtained in the city at prices ranging from five dollars per week upward.

A student who withdraws from the Department of Law in the course of an academic year is required to give immediate notice to the Registrar of the University.

*No deduction from the full year's fees will be made in the case of a student withdrawing in the course of a year unless he gives this notice.*

Graduates of the Department of Law with the degree of Bachelor of Laws are admitted without examination to the Department of Jurisprudence and Diplomacy for the degrees of Master of Laws, Master of Diplomacy, and Doctor of Civil Law.

For catalogues and further information, address

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*Washington, D. C.*

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LL. B., Centre College.		
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William Sinton Fitz Gerald.....	Iowa....	1416 S Street.
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Robert Root Bennett.....	Ind. ....	222 Seaton St., N. E.
Fred Hodges Benson.....	N. Y. ....	407 T Street.
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Samuel Martin Brosius.....	D. C. ....	McGill Building.
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Henry Charles Finkelstein.....	Turkey.	619 P Street.
Richard Wilson Flournoy, Jr. ....	Md.....	916 14th Street.
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John Jerome Lightfoot.....	D. C....	McGill Building.
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Chester R. Benny.....	Canada.	1313 Yale Street.
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R. S. Blair.....	Conn...	1104 12th Street.
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Otho Leonard Ferris.....	Iowa....	607 22d Street.
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Carlton Fox.....	N. Y....	2558 University Place
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Otis Haskell Gates.....	D. C....	18 3d Street, S. E.
William Alexander Gordon, Jr.....	Mont....	6 Cooke Place.
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B. S., University of California.		
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Mortimer Beecher Hall.....	Md.....	
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Carl John Hellerstedt.....	Tenn....	1218 12th Street.
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William Parker Herold.....	D. C....	702 9th Street.

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Frank Hobson Hubbard.....	D. C....	1804 17th Street.
Thomas Salisbury Huff.....	N. Y....	1645 K Street.
James B. Huss.....	Pa.....	27 Quincy Street.
George Alexander Hutchinson.....	Md....	927 F Street.
Robert W. Imbrie.....	D. C....	1326 14th Street.
Charles Grant James.....	Ohio ...	1712 F Street.
Laurence Aquila Janney.....	D. C....	1671 31st Street.
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Frederick E. Johnson.....	D. C....	1630 16th Street.
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A. George Maul.....	Ohio ...	1327 14th Street.
Robert Harold May.....	D. C. ..	The Farragut.
Charles McClair.....	Kans. ..	Patent Office.
A. B., University of Kansas.		
John Patrick McMahon.....	D. C....	1441 S Street.
Alexander Gordon Milhado.....	Va.....	
Frederick McCullough Moore.....	Md....	1328 Harvard Street.
Langdon Moore.....	D. C....	1755 P Street.
Howard M. Morse.....	Mass....	93 Patent Office.
S. B., Worcester Polytechnic Institute.		
Edmund Quincy Moses.....	Mass....	1114 14th Street.
S. B., Harvard University.		
Elmer L. Moulden.....	D. C....	1305 R. I. Avenue.
Clarence Raymond Naff.....	Kans. ..	Dept. of Justice.
Horace Strait Naylor.....	D. C....	407 Mass. Avenue.
Edwin Jonathan Newmeyer.....	Mo....	1918 I Street.
L. Bertram Nye.....	D. C....	936 O Street.
Filemon Perez.....	P. I....	The Montrose Hotel.
Robert Baxter Pharr.....	N. C....	133 E Street.
A. B., Erskine College.		
Joseph H. Peterson.....	Ore.....	810 12th Street.

Name.	Legal address.	City address.
Minott Eugene Porter.....	Ohio ...	1517 35th Street.
B. S., C. E., University of Michigan.		
Richard Granville Povey .....	D. C....	93 Patent Office.
B. S., Wesleyan University.		
Ralph Baldwin Pratt .....		
James Hardy Price.....	S. C....	310 9th Street, N. E.
William Keyes Quinter .....	D. C....	3322 14th Street.
Fred B. Rhodes .....	D. C....	1466 Bacon Street.
George Lawrence Richards.....	D. C....	Hotel Montrose.
B. S., University of France.		
James Bickle Rickard .....	Hawaii..	1635 L Street.
George Bigelow Schley.....	Ohio ...	1810 16th Street.
B. S., Kenyon College.		
Francis Joseph Seabolt .....	Mich....	1310 Q Street.
B. S., University of Michigan.		
William D. Searle.....	N. Y....	1131 12th Street.
Joseph Albert Sedgwick.....	Iowa....	78 Q Street.
Charles Henry Shaffer.....	Md.....	1303 Clifton Street.
B. S., St. John's, Annapolis.		
Howard J. Shore.....	N. C....	1002 H Street, N. E.
Joseph W. Smith.....	Mo.....	Gaithersburg, Md.
William John Sperl .....	Mass....	1446 Meridian Street.
B. S., Worcester Polytechnic Institute.		
Edgar Spinks.....	Miss....	U. S. Land Office.
Cassius M. C. Spooner.....	Iowa ...	Auditor's Office, P. O. D.
Frederick Briggs Squyer.....	N. Y....	1226 15th Street.
Delmas Clay Stutler.....	Va.....	1225 N. J. Avenue.
Waitstill Hastings Swenarton.....	N. J....	258 Patent Office.
Ph. B., Yale University.		
George Lester Tait.....	D. C....	610 Tenn. Ave., N. E.
Richard Edwin Thompson, Jr.....	Va.....	Signal Corps Post, Ft. Myer, Va.
William Edward Todd, Jr.....	D. C....	129 A Street, N. E.
Antonio C. Torres.....	P. I....	The Montrose Hotel.
A. B., Ateneo, Manila.		
Frederick Transom.....	Pa.....	2121 1st Street.
B. S., University of Pennsylvania.		
Frank Waite.....	Ala.....	1015 L Street.
Frederick Robert Whippler.....	D. C....	The Cairo.
Charles Herbert Wilson.....	N. Y....	Patent Office.
Orin Hazen Woods.....	Wyo....	Takoma Park.
Herbert Alpheus Wrenn.....	Va.....	802 A Street, N. E.
Eugene Young.....	D. C....	804 7th Street.
Gilbert Frank Zehnor.....	Pa.....	810 9th Street, N. E.



*Students in Patent Law.*

Name.	Legal address.	City address.
Bernard Barrows.....	Mass....	U. S. Patent Office.
S. B., Massachusetts Institute of Technology.		
LL. B., National University.		
Harry Wallace Bowen.....	Mass....	33 S Street.
B. S., Worcester Polytechnic Institute.		
LL. B., National University.		
Charles Wolverton Clement.....	Pa.....	1454 Howard Avenue.
B. S., Bucknell University.		
LL. B., Columbian University.		
Samuel McK. Dague.....	Ind....	313 E. Capitol Street.
A. M., Ph. B., Wabash College.		
LL. B., University of Indianapolis.		
Frederick Lincoln Edmonds.....	Mass....	208 Patent Office.
S. B., Massachusetts Institute of Technology.		
Edwin Edgar Ewell.....	Mich...	1804 S Street.
B. S., University of Michigan.		
LL. B., Columbian University.		
J. Stephen Giusta.....	D. C....	1210 L Street.
LL. B., LL. M., National University.		
James Gardner Greene.....	Ala....	1019 P Street.
LL. B., LL. M., Georgetown University.		
Walter Davis Groesbeck.....	Mich...	1441 Meridian Ave.
B. S., Michigan Agricultural College.		
LL. B., Columbian University.		
LL. M., National University.		
Edward Wilson Holmes.....	D. C. ...	1825 I Street.
LL. B., LL. M., National University.		
Fred F. Moore. ....	Minn...	174 N. C. Ave., S. E.
LL. M., National University.		
James Francis Hume Mothershead.....	D. C....	The Frederick.
LL. B., Columbian University.		
James Lawson Norris, Jr.....	D. C....	331 C Street.
A. B., Princeton University.		
LL. B., Columbian University.		
Frank Gustave Radelfinger.....	Cal.....	1431 Chapin Street.
B. S., University of California.		
LL. B., Columbian University.		
William Edgar Richardson.....	Md....	Bond Building.
LL. B., LL. M., National University.		
Clyde L. Rogers.....	N. Y....	10 Florida Avenue.
A. B., Alfred University.		
LL. B., Columbian University.		
Lawrence Kingsley Sager..	Mass....	325 Spruce Street.
S. B., Massachusetts Institute of Technology.		
Kiyomichi Seshimo.....	Japan...	126 E Street.

## DEPARTMENT OF LAW.

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Name.	Legal address.	City address.
Harold Howell Simms .....	D. C....	803 T Street.
LL. B., National University.		
John Cecil Spaulding.....	Mich...	2224 U Street.
A. B., University of Michigan.		
LL. B., LL. M., Columbian University.		
Frederick Starr Stitt .....	Md. ....	
A. B., A. M., Dickinson College.		
LL. B., Georgetown University.		
William Morse Stockbridge.....	D. C....	501 F Street.
LL. B., LL. M., National University.		
Frederick A. Tennant ...	N. Y....	805 L Street.
E. E., Cornell University		
LL. B., LL. M., National University.		
Herman A. Teufel .....	Pa.....	1824 9th Street.
LL. B., Columbian University.		
George K. Woodworth .....	D. C....	4 R Street.
M. E., Cornell University.		
M. S., Columbian University.		
LL. B., National University.		

*Special Students.*

William Hoyt Balch.....	N. H...	1237 G Street.
B. S., Dartmouth College.		
C. E., Thayer School.		
Harry A. Barber .....	D. C....	1316 L Street.
LL. B., Columbian University.		
Fritz von Briesen.....	N. Y....	918 F Street.
A. B., Harvard University.		
LL. B., New York University Law School.		
LL. M., D. C. L., Columbian University.		
Frederick W. Browne .....	Iowa ...	1126 10th Street.
LL. B., Columbian University.		
LL. M., National University.		
Charles C. Carroll.....	Ohio ...	29 5th Street, N. E.
A. B., A. M., Mt. Union College.		
Charles E. Clark.....	Pa.....	Agric. Dep't.
LL. B., Philadelphia Law School.		
LL. M., D. C. L., Columbian University.		
Roland Eugene Clark .....	Me.....	1714 Q Street.
A. B., Bowdoin College.		
Jesse P. Crawford.....	Ky.....	2124 Penn. Avenue.
LL. B., LL. M., Columbian University.		
Richard Bennett Creecy .....	D. C....	1515 28th Street.
I. N. Fluckey.....	Ill.....	1219 Mass. Ave., S. E.
LL. B., Columbian University.		
Isaac C. Foster.....	Va.....	503 C Street.
LL. B., Columbian University.		

Name.	Legal address.	City address.
Wallace C. Franklin .....	Ky.....	1221 Mass. Ave., S. E.
LL. B., Columbian University.		
John Andrew Griesbauer, Jr. ....	D. C....	1322 W Street.
James Frederick Harria .....	Ind.....	U. S. Jail.
Louis Albert Hill .....	Pa.....	1409 Howard Ave.
Walter Clarence Hurd .....	Utah ...	1913 Penn. Ave.
William Steel Jackson .....	Pa.....	325 Spruce Street.
LL. B., National University.		
E. E., Lehigh University.		
M. P. L., Columbian University.		
L. S. Johnson .....	Va.....	District Building.
LL. B., LL. M., D. C. L., Columbian University.		
Abraham B. Keefer .....	D. C....	1334 Emerson Street,
LL. B., LL. M., Columbian University.		
Richard Foss Locke .....	Ill.....	925 N Street.
Charles Eugene Matthews .....	Ok. Ty.	Sixth And. Office.
LL. B., LL. M., D. C. L., Columbian University.		
William Williams Mathewson .....	D. C....	14th St. Extended.
Charles D. Mayer .....	Ohio ...	332 E Street, N. E.
LL. B., Columbian University.		
Harold J. Pack .....	Pa.....	The Orme.
LL. B., Columbian University.		
Eugene H. Pitcher .....	Ill.....	519 11th Street.
LL. B., Columbian University.		
Walter P. Plumley .....	D. C....	408 H Street.
Joseph Sagmeister .....	Ohio ...	Senate Post-Office.
Francis Henry Schoeffel .....	N. Y....	718 19th Street.
Lacey Moore Simpson .....	Kans. ..	724 9th Street.
LL. B., Columbian University.		
Will Eugene Soult .....	Colo. . .	1332 North Cap. St.
LL. B., Columbian University.		
Linn Clingmann Tompkins .....	La. ....	520 12th Street, N. E.
Edward W. Vaill .....	Mass. . .	925 I Street.
LL. B., Columbian University.		
Mark Winchester .....	Ohio ...	1327 14th Street.
Ph. B., Denison University.		
Lester Hood Woolsey .....	N. Y....	2027 I Street.
A. B., Harvard University.		
Charles F. Vauch .....	Ohio ...	1913 Pa. Avenue.
LL. B., Columbian University.		
R. E. L. Yellott .....	D. C....	1748 Corcoran Street

*Recapitulation.*

Fourth Year .....	23
Third Year .....	125
Second Year .....	105
First Year .....	126
Patent Law .....	25
Special Students .....	36

Total ..... 440



# Department of Jurisprudence and Diplomacy.

## GRADUATE COURSE.

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### THE FACULTY.

CHARLES W. NEDHAM, LL. D., President of the University,  
Transportation and Interstate Commerce Law.

HENRY ST. GEORGE TUCKER, LL. D., Dean,  
Professor of Comparative Constitutional Law.

Hon. JOHN M. HARLAN, LL. D. (Associate Justice of the Supreme Court  
of the United States),  
Constitutional Law of the United States.

Hon. DAVID J. BREWER, LL. D. (Associate Justice of the Supreme Court  
of the United States),  
International Public Law.

Hon. JOHN W. FOSTER, LL. D. (Ex-Secretary of State),  
Diplomacy and Treaties of the United States; Duties of  
Ambassadors, Ministers, and Consuls; Boards of Arbitration.

\* Hon. DAVID J. HILL, LL. D. (Formerly Assistant Secretary of State and  
now Minister to Switzerland),  
European Diplomacy and Treaties.

Hon. WILLIAM WIRT HOWE, LL. D. (of the New Orleans Bar),  
Ancient Law, Roman Law, Mediæval and Modern Civil  
Law.

Hon. MARTIN A. KNAPP, LL. D. (Chairman Interstate Commerce Commission),  
Interstate Commerce Law.

Hon. CARROLL D. WRIGHT, LL. D. (Commissioner of the Department  
of Labor),  
Statistics and Social Economics.

CHARLES C. SWISHER, PH. D.,  
Comparative Politics.

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\* Absent on Leave.

Hon. HANNIS TAYLOR, LL. D. (Formerly Minister to Spain),  
Constitutional and Common Law of England and International Private Law.

JOHN W. HOLCOMBE, M. DIP.,  
Assistant Professor, Comparative Politics.

CHARLES RAY DEAN, M. DIP.,  
Assistant Professor, European Diplomacy.

CARL HAU, A. M.,  
Instructor in Roman Law.

N. W. HOYLES, Q. C. (Principal of Toronto Law School),  
Lecturer, Jurisprudence of Canada.

ROLAND P. FALKNER, PH. D. (The Library of Congress),  
Lecturer, Monetary History.

Hon. OSCAR P. AUSTIN (Chief of Bureau of Statistics),  
Lecturer, Interstate and Foreign Commerce.

JOHN FRANKLIN CROWELL, PH. D., L. H. D. (Treasury Bureau of Statistics),  
Lecturer, International Trade and Commercial Geography.

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WILLIAM REYNOLDS VANCE, M. A., PH. D., LL. B.,  
Librarian of the Law Library.

EDGAR BUXTON,  
Assistant Librarian.

ELMER L. MOULDEN,  
Assistant Librarian.

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### HISTORICAL.

At the annual meeting of the Board of Trustees of the University in June, 1898, an ordinance was adopted establishing, as a department of the University, the Department of Jurisprudence and Diplomacy.

This Department was opened with appropriate ceremonies at the University November 15, 1898. President McKinley and members of his Cabinet, with many other distinguished men in public life, were present. Addresses were delivered by B. L. Whitman, D. D., President of the University; Charles W. Needham, LL. D., Dean; Hon. John M. Harlan, LL. D., Associate Justice of the Supreme Court of the United States; Hon. David J. Brewer, LL. D., Associate Justice of the Supreme Court of the United States; Hon. Lyman J. Gage,

Secretary of the Treasury; Sir Wilfrid Laurier, Premier of Canada, and Hon. John W. Foster, ex-Secretary of State.

On January 3, 1899, Law Lecture Hall was completed and dedicated. This building is located at 1420 H Street, adjoining University Hall; it is very complete, having three lecture-rooms, a large library, and ample office rooms, the entire building being devoted to the use of the Departments of Law, Jurisprudence and Diplomacy.

### OBJECTS.

This Department is designed to afford a training in the subjects of higher legal knowledge, the political history of the world, the science and practice of diplomacy, and international law. Its courses are intended for lawyers, for students of jurisprudence and diplomacy, for persons who desire to fit themselves for the public, diplomatic, and consular service of the United States, and for those who desire a broad culture upon the larger questions of public life in order that they may better acquit themselves as journalists, legislators, and molders of public opinion upon the national and international issues of the day. To be an international lawyer or diplomatist one must, in addition to an education which makes one a scholar and lawyer, have special knowledge of the higher and broader subjects of the law and the intercourse between states and nations; to be influential in any public career a man in this day must have a knowledge of political history, the diplomatic relations which have existed between states and nations, the manner in which international controversies have been settled, the currents of international trade and commerce, the general principles of finance as held by civilized nations, and the modern methods of settling international affairs. It is the special object and purpose of this Department to furnish such instruction and opportunities for study at the National Capital, where are to be found the archives containing the history of these subjects and the men who have been called to public life by reason of their special fitness to deal with these questions. From among these public men our professors and lecturers are chosen, and these archives and libraries are open to our students.

### ADMISSION.

Applicants who have taken the degree of Bachelor of Laws in this or any other university or law school requiring three years of study will be admitted to the first year of the course as candidates for the degree of Master of Laws.



Applicants who have taken the degree of Bachelor of Arts, Bachelor of Science, Bachelor of Philosophy, or Bachelor of Laws in The Columbian University or any other university requiring an equal amount of study for the degree, and all others who have done work equivalent to that required for either of these degrees, and who pass a satisfactory examination before the Faculty of the Department, are entitled to admission to the course as candidates for the degree of Master of Diplomacy or the degree of Doctor of Civil Law.

Satisfactory evidence of degrees taken or equivalent work done will be required in all cases.

Any person approved by the Dean may attend one or more courses of lectures in the Department, have the benefit of the examinations, and receive a certificate for the work done.

**LANGUAGES.** A knowledge of Latin is regarded as essential in both of the law courses to enable students to pursue properly the history of the law. In addition to Latin, one of the modern languages, either French, German, or Spanish, will be required of applicants for the degree of Doctor of Civil Law, and a knowledge of either French, German, or Spanish will be required of those taking the degree of Master of Diplomacy. Students who have not received sufficient instruction in the languages required may obtain it during their course, in the Department of Arts and Sciences.

## COURSES OF INSTRUCTION.

### SPECIAL LECTURES.

Special lectures upon the jurisprudence of England and her Colonies, Germany, Austro-Hungary, Italy, and Colonial Law will be announced during the year.

A course of lectures upon the Organization of the Diplomatic Service of Other Nations, the History of International Conventions, and the Lives of Great Men will be delivered by some of the Diplomatic Corps resident in Washington and by other distinguished public men.

### ASSIGNMENTS.

#### *First Year.*

Constitutional Law of the United States. One hour.\* Professor HARLAN. *Story on the Constitution.*

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\* Unless otherwise stated, hours per week throughout the year.

DEPARTMENT OF JURISPRUDENCE AND DIPLOMACY. 173

Comparative Constitutional Law. One hour. Professor TUCKER.

International Public Law. One hour. Professor BREWER. *Hall*.

International Private Law. One hour, one-half year. Professor TAYLOR. *Minor's Conflict of Laws*.

Roman Law. One hour, one-half year. Lectures. Professor HOWE. *Studies in the Civil Law*.—Howe.

Transportation and Interstate Commerce Law. Two hours. Professor NEEDHAM.\*

History of Diplomacy and Treaties of the United States. One hour, one-half year. Professor FOSTER. *A Century of American Diplomacy*.—Foster.

Statistics and Social Economics. One hour. Professor WRIGHT. *Practical Sociology*.—Wright.

Advanced Procedure (Pleading, Practice, and Evidence) and Office Practice. Practical instruction and exercises in the preparing of legal papers. Two hours. Professor CLEPHANE.

Moot Courts. Two hours. Professors CLEPHANE, PETER, and EARNEST.

Appellate Moot Court. The students in turn prepare and argue appellate cases, and may be required to write opinions. Briefs and opinions are carefully examined, criticised, and graded by the professors in charge. Two hours. Judges MATTINGLY, LARNER, and DUVALL.

Comparative Politics and Political Geography. One hour. Professor SWISHER.\*

Administrative Law.\* One hour, one-half year.

Class Conference, Comparative Politics. One hour. Asst. Professor HOLCOMBE.

Class Conference, Roman Law. One hour. Mr. HAU.

Latin, French, German, and Spanish. (Special.)

Five hours each week will be devoted to class discussions and conferences, conducted by professors and instructors.

Regular students in this Department may attend classes in the Department of Law without additional fee.

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\* No text-book.

*Second Year.*

Practice of Diplomacy, Organization of the State Department Duties of Ambassadors, Ministers, and Consuls, and International Arbitration.\* One hour. Professor FOSTER.

History of European Diplomacy and Treaties.\* Lectures.

Laws of Ancient Nations.\* One hour.

(a) History and General Principles of the Laws of India, Egypt, Palestine, and Greece. Professor HOWE.

(b) A General View of the Law in Europe during the Middle Ages. Professor HOWE.

Roman Law.\* One hour.

(a) History and General Principles of Roman Law to and including the time of Justinian. Professor HOWE.

(b) The Extension of the Roman Law into some of the Modern States. Professor HOWE.

The Common Law of England ; its History and Extension into some of the Modern States. Two hours. Professor TAYLOR.

Jurisprudence of France and Spain. Professor ———.

Jurisprudence of Canada. Professor HOYLES.

International Public Law.\* One hour. Professor BREWER.

Interstate Commerce Law. One hour, one-half year. Professor KNAPP.

Interstate and Foreign Commerce. Lectures. One hour, one-half year. Professor AUSTIN.

International Trade and Commercial Geography.\* Lectures. One hour, one-half year. Professor CROWELL.

Finance.\* Professor ———.

Comparative Politics. One hour. Professor SWISHER.

Class Conference, Comparative Politics. One hour. Asst. Professor HOLCOMBE.

Class Conference, European Diplomacy. One hour. Asst. Professor DEAN.

Class Conference, Roman Law. One Hour. Mr. HAU.

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\* No text-book.



DEPARTMENT OF JURISPRUDENCE AND DIPLOMACY. 175

Class Conference, Laws of Ancient Nations. One hour,  
Mr. HAU.

Latin, French, German, and Spanish. (Special.)

Special Lectures, Class Discussions, and Conferences. Five  
hours.

The class-room work for each year will occupy about ten  
hours—two hours every week day except Saturday.

COURSES.

LAW SECTION.—Leading to the Degree of Master of Laws.  
One year.

1. Required Course.

Constitutional Law of the United States.  
Comparative Constitutional Law.  
International Public Law.  
International Private Law.  
Roman Law.  
Transportation and Interstate Commerce Law.

2. Elective Course. In addition to the required courses,  
the student must select and pursue four hours  
per week from the following courses :

Advanced Procedure and Office Practice.  
Moot Courts.  
Appellate Moot Court.  
Comparative Politics.

LAW SECTION.—Leading to the degree of Doctor of Civil Law.  
Three years.

1. Required Course, first year.

Constitutional Law of the United States.  
Comparative Constitutional Law.  
International Public Law.  
International Private Law.  
Roman Law.  
Transportation and Interstate Commerce Law.  
Comparative Politics.

## 2. Elective Course.

History of Diplomacy of the United States.  
History of Treaties to which the United States has  
been a party.  
Administrative Law.  
Political Geography.  
Colonial Law.  
Statistics and Social Economics.  
Latin and French, German, or Spanish (special).

## 3. Required Course, second year.

Comparative Constitutional Law.  
Comparative Politics.  
Laws of Ancient Nations.  
Laws of India, Egypt, Palestine, and Greece.  
General View of the Law in Europe during the  
Middle Ages.  
Roman Law:  
Roman Law to and including the time of Jus-  
tinian.  
The Extension of the Roman Law into some of  
the Modern States.  
Common Law of England ; its History and Exten-  
sion into some of the Modern States.  
Jurisprudence of France and Spain.  
International Public Law.  
Interstate Commerce Law.

## 4. Elective Course.

Practice of Diplomacy of the United States.  
International Arbitration.  
History of European Diplomacy and Treaties.  
International Trade.  
Finance.  
Latin and French, German, or Spanish (special).

## 5. Third Year.

Elective courses and review.  
Preparation of Thesis.  
(Attendance optional, and one-half tuition only is  
charged for this year.)

DIPLOMATIC SECTION.—Leading to the degree of Master of Diplomacy. Two years.

1. Required Course, first year.

Comparative Politics and Political Geography.  
History of Diplomacy of the United States.  
History of Treaties to which the United States has  
been a party.  
International Public Law.  
Commercial Geography.  
Statistics and Social Economics.

2. Elective Course.

Constitutional Law of the United States.  
Comparative Constitutional Law.  
International Private Law.  
Administrative Law.  
Colonial Law.  
French, German, or Spanish (special).

3. Required Course, second year.

Comparative Politics.  
Practice of Diplomacy of the United States.  
Organization of the State Department.  
Duties of Ambassadors, Ministers, and Consuls.  
International Arbitration.  
History of European Diplomacy and Treaties.  
International Public Law.  
International Trade and Commercial Geography.  
Finance.

4. Elective Course.

Laws of Ancient Nations.  
Common Law of England.  
Course in Comparative Jurisprudence.  
French, German, or Spanish (special).

METHOD OF INSTRUCTION.

Professors conduct the study of the subject to which they are assigned by lectures, required courses of reading, and class discussions and conferences. Where a subject is divided into different branches or subdivisions, special lecturers are introduced who are specially qualified to speak upon the subject assigned.



All subjects are studied historically and comparatively and with a view to arriving at the present conditions and state of the law.

Class discussions and conferences follow each lecture, and students are encouraged to make original research and report their work to the class.

**COMPARATIVE JURISPRUDENCE.** This course begins with the study of the laws of primitive people, the laws of India, Egypt, Palestine, and Greece. Following this is a study of the Roman Law as derived from Greece and developed in Rome itself, down to the time of Justinian; then a general view of the law in Europe during the Middle Ages and tracing the Roman Law to the modern nations in which it now prevails. The rise of the Common Law and its extension to the nations in which it prevails are carefully considered, and then the jurisprudence of the great modern States is studied, giving to each a special lecture course, with class discussions. The relations of England to her colonial empire and the federal system existing in Canada receive special attention. All statutory laws which have a bearing upon the exercise of national power and which affect the relations of nations with each other, as well as the fundamental law, are studied in each course.

This subject is under the general supervision of the Dean, and lecturers are appointed upon the jurisprudence of each nation.

**COMPARATIVE CONSTITUTIONAL LAW.** This subject is studied by first considering in a thorough and comprehensive manner the subjects and the scope of the Constitution of the United States; next taking the constitutions of other nations, studying their sources and subjects, comparing their provisions in the light of judicial interpretation by the highest courts of the country with the Constitution of the United States as construed by the Supreme Court of the United States, giving the student a thorough knowledge of the statement of constitutional law in various countries, the scope of each, the subjects treated, the judicial construction, and the points in which our Constitution differs from that of other nations.

**INTERNATIONAL LAW.** This subject is studied with reference to its sources, its sanctions, its present condition, and the lines and scope of its probable development.

**HISTORY OF DIPLOMACY AND TREATIES OF THE UNITED STATES.** The course of lectures on American Diplomacy embraces the duties of ambassadors and ministers; duties of con-

suls ; treaties, their method of negotiation, various forms of, attitude of Congress, rulings of Supreme Court, and historical sketch of most important American treaties ; arbitration, principles of, organization and method of procedure ; and the Monroe Doctrine.

**HISTORY OF EUROPEAN DIPLOMACY AND TREATIES.** Approaching diplomacy not merely as the science of the relations of sovereign States and the art of conducting negotiations between them, but primarily as the actual transaction of international business, the course of instruction aims to show what European diplomacy really is by the examination of its history. As all important international transactions are summed up and embodied in definite treaties and conventions, the subject can be most profitably discussed by an analysis of these documents, supplemented by an account of the persons, interests, events, forms, ceremonies, and negotiations that have contributed to their development. By this method it is hoped that it may be possible not only to derive inductively the principles of diplomacy as an art and as a science, but also to present an exposition of the present international relations of Europe as determined by the great treaties, from the Congress of Westphalia to the Congress of Berlin, showing the existing affinities, antagonisms, and tendencies of the Chief European powers.

**COMPARATIVE POLITICS ; POLITICAL GEOGRAPHY IN ITS RELATION TO POLITICAL HISTORY.** The work in this department is designed to put the student in possession of the main results of political development, enabling him to follow the course of history, both in its geographical and in its political movement, with special reference to the structure and influence of the States whose work has been worth most to the world.

**FINANCE.** This subject is treated broadly with reference to international relations in commerce and banking. It considers the nature and functions of money and credits and their international circulation ; also the subject of Public Finance, including the sources of government revenues, bond issues, taxation, the disbursement of the revenues, and the organization of the Treasury Department.

**INTERNATIONAL TRADE AND COMMERCIAL GEOGRAPHY.** This course treats of the products of the United States which are the subjects of international trade ; where like products are grown or manufactured, and the markets for the same, giving the general currents or geography of trade and commerce and



showing how affected by treaties and legislation, and the services of diplomatic and consular agents of the United States.

**TRANSPORTATION AND INTERSTATE COMMERCE LAW.** This subject is treated historically, beginning with the public highway, the use of navigable waters, and the construction and operation of canals and railroads; observing the rights of the public; the relations of owners of railroads to the management and the public; theory and practical working of competition and combination; legislative control, and reviewing the Interstate Commerce Law and the decisions thereunder.

**STATISTICS AND SOCIAL ECONOMICS.** The aim is to teach the principles, theory, and practice of the statistical method, illustrating its use and abuse in presenting data relating to population, production, commerce, wages, prices, crime, etc. Under social economics the course deals with principles of social economics, elements of industrial society, systems of industry, evolution of manufactures, the factory system, the regulation of labor, strikes, arbitration, effects of machinery, prison labor, coöperation, savings institutions, labor legislation, labor organizations, socialism, etc., etc.

#### ORATORY.

This course is in charge of Professor Channing Rudd, and is designed to give practical, common-sense training in oratory and public speaking. By culture the voice is made rich, powerful, and flexible, the body trained to aid in the expression of thought and emotion, and the mind trained to quick, clear, and logical thinking. The course includes voice culture, chest cultivation, deep breathing, gesticulation, self-control, extemporaneous speaking, argumentation, debating, and brief drawing.

Opportunity for the practical application of the principles and exercises taught is afforded by the Junior Congress of the United States. The Congress is composed of members of the oratory classes, and is modeled after the National Congress, being a legislative body in work and organization.

#### COURSES IN ARTS AND SCIENCES.

Students taking a full course for a degree may be admitted, without additional fee, except matriculation and laboratory fees, to courses for which they are qualified, in the Department of Arts and Sciences.



### DEGREES AND THESES.

The degree of Master of Laws is conferred upon students taking the prescribed course and passing the required examinations.

The degrees of Master of Diplomacy and Doctor of Civil Law are conferred upon students who take the courses prescribed therefor, pass the required examinations, and submit satisfactory and creditable theses.

Theses are required of all students who are candidates for the degrees of Master of Diplomacy and Doctor of Civil Law upon subjects selected by the student and approved by the faculty. The thesis must represent independent thinking and research, and must not be a mere essay or compilation of facts. It must consist in the reasoned presentation of some distinct proposition—not a mere common-place of knowledge—and adapted to illustrate the writer's familiarity with some field of inquiry, his comprehension of the subject chosen, his acquaintance with the sources of information relating to the theme, his power of clear and coherent statement, his capacity for logical arrangement of ideas, and his ability to establish by proof the position he defends. The value of the student's effort will be judged by its exhibition of the qualities above mentioned rather than by its length; but the treatment should be sufficiently extended to furnish evidence of serious investigation and sustained thinking. Clearness and correctness of style are essential, but mere ornament is superfluous. An analytical outline of the argument and the exact citation of authorities, with precise references, are expected. The thesis must be prepared and printed at the expense of the student, as may be required by the faculty, and shall become the property of, and remain with, the Department.

The standing of the student in all the courses and his legal attainments, the regularity of his attendance, and his character will determine his right to the degree.

### EXAMINATIONS.

Written examinations are held at the conclusion of each course of study, and a record is kept of the standing of the students in class conference work.

## PRIZE.

A prize, offered by the Edward Thompson Company, of a set of the Encyclopædia of Law, first or second edition, or a set of the Encyclopædia of Pleading and Practice, is awarded to the student in this Department who shall write the best essay on some legal subject, to be assigned by the Faculty.

PRIZE AWARD, 1903.

Edward Thompson Company Prize . . Alexander William Kent.

## LAW LIBRARY AND READING ROOM.

A well-equipped working library, comprising 4,000 volumes, is open to the students in Law Lecture Hall from 9 a. m. to 10 p. m. Competent librarians are in charge and will give students assistance in looking up subjects and in the use of books.

The library contains the standard text-books, the West Reporter System of Federal and State decisions complete, State Reports, the English Common Law and Chancery Reports, Encyclopædias of Law, Digests, reference books, and current law publications.

Adjoining the Library is a conversation room for students, affording opportunity for consultation.

In addition to these facilities, the students have free access to the great Congressional Library and other public libraries in this city.

## FEES.

The tuition fee is one hundred dollars for each year, payable in advance, monthly or quarterly, at the option of the student. For the third year in the course for the degree of D. C. L. one-half tuition will be charged.

The tuition fee for the course in Oratory is fifteen dollars.

Printed synopses and publications issued in connection with the work are furnished to students at cost.

Students proposing to withdraw from the Department of Jurisprudence and Diplomacy will inform the Registrar of the University to that effect. In the absence of such notification no claims for exemption from fees will be allowed.

Students taking special courses only are charged fifteen dollars for each subject.

The fee for diploma is ten dollars, and a library fee of two dollars per year is charged.

For further information and application blanks for admission, address

CHANNING RUDD, *Registrar,*  
*The Columbian University,*  
*Washington, D. C.*

STUDENTS.

*Candidates for the Doctorate in Civil Law.*

Name.	Legal address.	City address.
Emma Reba Bailey.....	Ga.....	The Colonial Hotel.
LL. B., LL. M., Washington College of Law.		
LL. M., Columbian University.		
Alfredo Alvarez Calderon.....	Peru ...	1701 Mass. Avenue.
LL. B., San Marcos University, Peru.		
LL. M., Columbian University.		
Orlan Clyde Cullen.....	Minn....	201 E. Capitol Street.
C. E., St. Paul's College.		
LL. M., Columbian University.		
Edwin Carpenter Dutton ...	Md. ....	416 5th Street.
LL. B., Washington College of Law.		
LL. M., Columbian University.		
Joseph Herbert Ford.....	D. C....	314 2d St., S. E.
B. S., A. M., M. D., Columbian University.		
Carl Hau.....	Germany	1706 S Street.
A. M., Columbian University.		
John K. Hench..	Pa. ....	139 F Street, N. E.
B. E., Pa. State Normal College.		
LL. B., LL. M., Columbian University.		
Samuel Herrick.....	Pa. ....	2126 R Street.
LL. B., LL. M., Columbian University.		
Isaac A. Hourwich.....	N. Y....	1104 7th St., N. E.
Ph. D., Columbia University.		
Alexander William Kent.....	D. C....	1124 12th Street.
George Xavier McLanahan.....	N. Y....	1401 21st Street.
A. B., Yale University.		
LL. B., Harvard University.		
LL. M., Columbian University.		
Herman Joseph Schulteis.....	Wis....	117 N. Y. Avenue.
A. M., St. John's College.		
LL. M., Georgetown University.		
Haskell Burlason Talley.....	Tenn. .	1931 K Street.
LL. B., Vanderbilt University.		
LL. M., Columbian University.		
Luther Mason Walter.....	Ky. ....	B'd of Pension App'ls.
B. E., National Normal University.		
LL. B., LL. M., Columbian University.		



*Candidates for the Degree of Master of Diplomacy.*

Name.	Legal address.	City address
E. Herbert Block.....	D. C. .	Farragut Flats.
LL. B., Georgetown University.		
Claude Browne.....	Ala. ....	1737 F Street.
Fred Morris Dearing .....	Mo. ....	2011 Q Street.
Albert Cornelius Gaw.....	Minn. . .	Kendall Green.
A. B., A. M., William Jewell College.		
M. A., Gallaudet College.		
Clare Greacen.....	Mich. . .	1105 Yale Street.
LL. B., LL. M., Howard Law School.		
Fong Hoh .....	China. .	Chinese Legation.
John Wesley Langley.....	Ky. ....	420 6th Street.
A. B., LL. B., National University.		
LL. M., Georgetown University.		
LL. M., D. C. L., Columbian University.		
Edwin Maxey .....	D. C. ....	228 E. Capitol St.
Ph. B., Bucknell University.		
LL. B., LL. M., Chicago Law School.		
D. C. L., LL. D., Illinois College of Law.		
Ph. M., University of Chicago.		
Edgar B. Meritt.....	Ark. ....	201 E. Capitol St.
LL. B., Georgetown University.		
LL. M., Columbian University.		
James A. Moore .....	Conn. . .	Fort Myer, Va.
B. S., Trinity College.		
Frederick Roosevelt Scovel.....	Italy....	1427 20th Street.
Louis P. Torres .....	P. I. ....	The Montrose Hotel.
B. A., Ateneo Municipal, Manila.		

*Candidates for the Degree of Master of Laws.*

Benjamin Wexler Beck.....	Tenn. . .	1218 12th Street.
B. S., Chattanooga Normal University.		
LL. B., Columbian University.		
Frederick Carlos Bryan.....	Ohio....	700 14th Street.
B. A., Western Reserve College.		
LL. B., Cincinnati Law College.		
Alfred R. Cheever.....	Kans. . .	925 R Street.
LL. B., National University.		
James Hervey Dorman, Jr.....	Ky. ....	1709 Q Street.
LL. B., Centre College.		
Victor Hugo Duras.....	Neb. ....	1524 P Street.
LL. B., University of Nebraska.		
John William Farley .....	Tenn. . .	1931 K Street.
LL. B., Vanderbilt University.		

# DEPARTMENT OF JURISPRUDENCE AND DIPLOMACY. 185

Name.	Legal address.	City address.
William Sinton Fitz Gerald.....	Iowa....	1416 S Street.
LL. B., Columbian University.		
Wallace C. Franklin.....	Ky. ....	1221 Mass Ave., S. E.
LL. B., Columbian University.		
Hubert Bruce Fuller.....	Conn....	1615 Florida Avenue.
A. B., Yale University.		
Gratz Wilson Helm.....	Ill. ....	2410 18th Street.
LL. B., Georgetown University.		
Frank N. Henderson.....	Ind. ....	102 B Street, N. E.
Leslie Stilwell Kinnard. ....	Ind. ....	The Marlborough.
Masuji Miyakawa.....	Japan ..	1424 New York Ave.
Martin G. Myhre.....	N. D....	Navy Department.
William D. Ordway.....	Mich ..	
LL. B., Detroit College of Law.		
Karl Paine.....	Idaho ..	1023 Vermont Ave.
James Taylor Petty.....	Pa. ....	12 Grant Place.
A. B., A. M., Ph. D., Allegheny College.		
Harrison Timothy Clark Smith.....	N. Y....	1203 11th Street.
LL. B., Columbia College.		
Albert Swindlehurst.....	Canada.	Edgemont, D. C.
B. C. L., McGill University.		
George Carroll Todd.....	Va. ....	1454 Euclid Place.
B. S., LL. B., Columbian University.		
Jesse W. Tull.....	Ill. ....	516 B Street, N. E.
Alfred Irving Warren.....	Ill. ....	1709 Q Street.
Robert Lincoln Williams .....	Colo....	1313 T Street.
LL. B., Columbian University.		

## Special Students.

Annie Beers .....	D. C....	117 4th Street, S. E.
James H. Colfelt .....	Pa. ....	1612 R. I. Avenue.
Adelaide Davis.....	D. C....	213 C Street, S. E.
Albert F. Dawson .....	Iowa....	2120 G Street.
Blackburn Esterline.....	D. C....	340 Indiana Avenue.
LL. B., LL. M., National University.		
Wing Shew Haw .....	China ..	Chinese Legation.
Flora L. Hendley.....	D. C....	1216 L Street.
Thomas O'Donnell Hillen.....	Md. ....	
John Harlen Longfellow.....	Idaho ..	207 C Street.
LL. B., University of Nebraska.		
Carl Christian Lorentzen.....	Denmark.	1751 Pa. Ave.
Harry C. McCarty.....	Me. ....	1361 Yale Street.
A. B., Bowdoin College.		

Name.	Legal address.	City address.
Caroline S. McLanahan.....	D. C....	1401 21st Street.
Cornelia Day McLanahan ....	D. C....	1401 21st Street.
Paul C. B. Naah .....	N. Y....	Metropolitan Club.
Adele M. Stewart.....	D. C....	1105 Yale Street.
Harry Hill Thorndike.....	Mass....	Arlington Hotel.
A. B., Harvard University.		
Sarah Eskridge White.....	D. C....	Morse School.

*Recapitulation.*

Candidates for the Doctorate in Civil Law . . . . .	14
Candidates for the Degree of Master of Diplomacy . . . . .	12
Candidates for the Degree of Master of Laws . . . . .	23
Special Students . . . . .	17
Total . . . . .	66



## Doctors of Philosophy.

During the years 1894 to 1902, inclusive, the University has conferred the degree of Doctor of Philosophy, after examination and the presentation and public defense of a thesis, upon the following persons:

1894.

Edward Farquhar, (Greek)  
*Thesis*: Elements of Unity in the Homeric Poems. (Conservative Review, vol. iii, June-September, 1900.)

Walter Scott Harshman, (Theoretical Astronomy)  
 M. S., 1892, Columbian University.  
*Thesis*: Investigation of the Motion of the Pericentre of Deimos. (Astronomical Journal, Boston, vol. xiv, pp. 145-148, 1894.)

Professor Frank Hall Knowlton, (Botany)  
 B. S., 1884; M. S., 1887, Middlebury.  
*Thesis*: The Flora of the Laramie Group and Allied Formations. (Not published.)

Claude Augustus Oscar Rosell, (Chemistry)  
 M. A., 1881, University of Pennsylvania; LL. B., 1886, Georgetown University.  
*Thesis*: Investigation of the Properties of Ferric Acid. (J. Am. Chem. Soc., vol. xvii, pp. 760-769, 1895.)

1895.

George Wesley Hamner, (History)  
 B. A., 1882, M. A., 1885, Hiawassee College; LL. B., 1885, University of Alabama;  
 LL. M., 1886, Georgetown University.  
*Thesis*: Researches upon the Government of the Creek Indians. (Not published.)

1896.

Edward Clarke Hudson, (Greek)  
 B. A., 1884, M. A., 1894, Hiawassee College; M. A., 1894, Columbian University.  
*Thesis*: Investigation into the Use of the Genitive Case in Greek. (Not published.)

Rev. James Stephen Lemon, (Psycho-physics)  
 B. A., 1864; M. A., 1867, Wesleyan University, Middletown, Conn.  
*Thesis*: The Skin Considered as an Organ of Sensation. (Published separately, 1895, 70 pp.)

1897.

Professor Charles Arthur Hollick, (Palæobotany)  
 Ph. D., 1870, Columbia College.  
*Thesis*: Palæobotany of the Yellow Gravel at Bridgeton, N. J. (Not published.)

John Scott Johnson, (Philosophy)  
 B. S., 1893; M. A., 1894, Columbian University.  
*Thesis*: The Influence of French Thought on the Formation of the Constitution of the United States. (Not published.)

(187)

- Timothy William Stanton, (Paleontology)  
 B. S., 1883; M. S., 1895, University of Colorado.  
*Thesis*: A Comparative Study of the Lower Cretaceous Formations and Faunas of the United States. (Jour. of Geology, pp. 1-49, September-October, 1897.)
1898.  
 Cabell Whitehead, (Chemistry)  
 B. M., 1886, Lehigh University; M. S., 1895, Columbia University.  
*Thesis*: A Study of the Tellurides; Their Formation and Chemical Properties. (Not published.)
1900.  
 Eugene Byrnes, (Physical Chemistry)  
 B. A., 1884, Michigan University; LL. B., 1887; LL. M., 1888, Columbia University.  
*Thesis*: Experiments on the Direct Conversion of the Energy of Carbon into Electrical Energy. (Not published.)
- Rev. Benjamin Alfred Dumm, (Philosophy)  
 B. A., 1886; M. A., 1889, Western Maryland College.  
*Thesis*: The Concept of Self in the Analysis of Experience. (Not published.)
- Professor Charles Russell Ely, (Chemistry)  
 A. B., 1891; A. M., 1897, Yale College.  
*Thesis*: Investigation of the Phenomenon of Deliquescence and the Capacity of Salts to Attract Water Vapor. (Not published.)
- Ernestine Fireman, (Chemistry)  
 M. S., 1898, Columbia University.  
*Thesis*: The Action of Phosphonium Iodide on Tetra and Penta Chlorides. (Not published.)
- Charles Moore, (American History)  
 A. B., 1878, Harvard; M. A., 1898, Columbia University.  
*Thesis*: The Northwest under Three Flags. (Published separately by Harper & Bros., New York, 1900, 402 pp.)
1901.  
 William Hamilton,  
 B. A., 1891, Moravian College, Pennsylvania; M. A., 1894, Columbia University.  
*Thesis*: The Expansion of Russia to the Eastward. (Not published.)
- Chohei Shirasu,  
 Graduate, 1893, Doshisha University, Japan; A. M., 1899, Yale University.  
*Thesis*: The Development of Commerce in Japan and its Effect on Civilization. (Summary of Commerce and Finance for December, 1901, Bureau of Statistics. U. S. Treasury Department, pages 2227-2315.)
1902.  
 Rev. Frank Leighton Day,  
 B. A., 1891, M. A., 1896, Roanoke College; B. D., 1891, Vanderbilt University.  
*Thesis*: Did the Semites Pass through a Totem Stage? (Not published.)
- Nevil Monroe Hopkins,  
 B. S., 1899, M. S., 1900, Columbia University.  
*Thesis*: Some Experiments on Electrolytic Conductivity with Reference to the Ionic Theory. (Not published.)

## Degrees.

At the Commencement in June, 1903, degrees were conferred as follows :

### *Bachelor of Arts.*

Levi Russell Alden.	Ella Arvilla Merritt.
Gladys Ames.	George Elmer O'Bryon.
Herbert James Bryson.	Charles D. Rhodes, as of the class
Mary Sumner Fieldhouse.	of 1885.
Emilie Watts McVea, as of the	Walter Gordon Slappey.
class of 1902.	

### *Bachelor of Science.*

John Ford.

### *Bachelor of Science in Chemistry.*

Arthur Bertram Adams.

### *Bachelor of Science in Civil Engineering.*

James Douglas Cleary.	Thomas Fleming, Jr.
John Blake Gordon.	

### *Bachelor of Science in Economics.*

Henry Francis Lowe.

### *Bachelor of Science in Electrical Engineering.*

Otis Little McIntyre.	William Thomas Pierson, Jr.
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### *Bachelor of Science in General Science.*

James Alfred Brearley.	Alvin Todd Burrows.
Louis Albert Fischer.	

### *Civil Engineer.*

Earl Gordon Marsh,

B. S., Columbian University.

*Thesis* : Design of Inverted Siphon Across North Fork of Milk River, Montana.

### *Electrical Engineer.*

Isaac Allison,

B. S., Columbian University.

*Thesis* : A Central Heating and Lighting Station for the Columbia Institute for the Deaf.

Philander Betts,

B. S., M. S., Rutgers College.

*Thesis* : Isolated Electric Plants versus Central Station Distribution.

Wilhelm Oswaldt Hugo Sauer,

S. B., Catholic University of America.

*Thesis* : Electric Meters.



*Master of Science.*

Ray Smith Bassler,  
A. B., University of Cincinnati.  
*Thesis*: The Bryozoan Fauna of the  
Rochester Shales.

Henry Herbert Dyke,  
A. B., Marietta College.  
*Thesis*: The Number II.

Buist Cuthbert Getsinger,  
B. Litt., Furman University.  
B. S., Columbian University.  
*Thesis*: The Measurement of Battery  
Resistance.

Herbert Louis Solym,  
B. S., Columbian University.  
*Thesis*: Some Pending Questions in  
the Physics of the Ether.

Bernard Howard Smith,  
B. S., Massachusetts Agricultural Col-  
lege.

B. S., Boston University.  
*Thesis*: A Comparative Study of  
Methods of Determining Formalde-  
hyde and the Estimation of Formal-  
dehyde in Milk.

Edgar Derry Tillyer,  
B. S., Rutgers College.  
*Thesis*: A Theorem of Mittag-Leffler

John Cleveland Welsh,  
B. S., Carson and Newman College.  
*Thesis*: The Magnetic Circuit.

*Master of Arts.*

Ida May Cooley,  
Ph. B., Syracuse University.  
*Thesis*: Mythological Allusions in the  
Odes of Horace.

Harry Tennyson Domer,  
A. B., Columbian University.  
*Thesis*: Relations between the United  
States and Cuba During the Past  
Century.

Arthur Carey Fleshman,  
B. S., M. S., National Normal Univer-  
sity.  
*Thesis*: A Doctrine of Education.

Emilie Watts McVea,  
*Thesis*: Marlowe as a Factor in the  
Development of the English Drama.

Rev. David Wallace Montgomery,  
A. B., 1889, Hastings College.  
*Thesis*: The Historic Development of  
the Conception of a Future Life  
from the Old and New Testament  
Scriptures and Early Church His-  
tory.

Luther Adolph Richards,  
A. B., Columbian University.  
*Thesis*: The Cycloid.

George Carroll Todd,  
B. S., LL. B., Columbian University.  
*Thesis*: The Police Power of Govern-  
ment in Its Application to the Reg-  
ulation and Control of Quasi-Public  
Corporations.

Sarah Agnes Wallace,  
Ph. B., University of Chicago.  
*Thesis*: Dream Life of the Roman-  
ticists.

Oscar Wilkinson,  
M. D., Tulane University.  
Ph. B., University of Mississippi.  
*Thesis*: Good Style in Text-Books.

*Dotor of Philosophy.*

Edwin Allston Hill,  
A. B., A. M., Yale University.  
M. S., Columbian University.  
*Thesis*: The Constitution of Certain  
Halogen Oxy-acids from Thermo-  
Chemical Data.

William Mather Lamson,  
B. S., C. E., Columbian University.  
*Thesis*: Iron and Steel Domes.

Thomas Malcolm Price,  
B. S., Maryland Agricultural College.  
M. S., Columbian University.  
*Thesis*: The Influence of Varying  
Strength Solutions of Formalde-  
hyde on some of the Enzymes of  
Animal Origin.

Harriet Richardson,  
A. B., A. M., Vassar College.

*Dotor of Dental Surgery.*

Ernest Meredith Butz.  
Caesare Louis Constantini.  
B. Avery Gardner.  
Wilmer Burton Greene.

Ernest R. Hagan.  
John W. Shaw.  
Ernest E. Smith.

*Doctor of Medicine.*

- |  |   |
|--|---|
| Eric Alonzo Abernethy.<br>M. D., University Medical College.<br>Richmond.  | Julius Harold Hurst.<br>Huron Willis Lawson,<br>B. S., State Agricultural College of<br>Michigan.   |
| Wilbur Henry Rietz Brandenburg.<br>Gilmer Brenizer,<br>A. B., C. E., Davidson College.   | William J. Mallory.<br>William P. McKee.<br>Robert Irving McNeil.<br>Joseph Ernest Mitchell.<br>Carl Victor Nyman,<br>Ph. G., Northwestern University.                  |
| Enoch George Brian.<br>Elmore Everest Butterfield.<br>H. Clark Caldwell.<br>Harry Clay Coburn, Jr.,<br>B. S., Columbian University.                            | Wilbur M. Phelps,<br>M. D., Howard University.  |
| Giles Burneston Cook.<br>Carl Lawrence Davis.<br>Harry Hampton Donnally,<br>A. M., Columbian University.   | Malvern H. Price.<br>Phar. D., National College of Phar-<br>macy.   |
| Emmett Abner Fagin.<br>Arthur Case Fitch,<br>Phar. D., National College of Phar-<br>macy.  | William Alexander Quinn.<br>C. Eder Reed.<br>Thomas Wesley Schwab.<br>Maynard J. Simmons.<br>Charles Newland Slater.<br>Dwight Gordon Smith,<br>A. B. Williams College. |
| Frederick Arthur Fitch.<br>William Frank Galatzo.<br>John Henry Gunnell.<br>Thomas Cole Holloway.<br>Zachariah Eugene House,<br>D. D. S., National University. | Edgar Snowden.<br>Lewis Harvie Taylor.  |

*Bachelor of Laws.*

- |  |  |
|--|--|
| Benjamin Franklin Adams,<br>A. B., Dartmouth College.  | Christopher T. Clark,<br>A. B., Johns Hopkins.   |
| William Frazier Adams,<br>A. B., University of Wisconsin.  | Edgar J. W. Clarkson.<br>Thomas Reed Clift.<br>Charles Elmer Connor.<br>Byron McPherson Coon.<br>Claude Hixson Coryell.<br>O. Glenn Cowhick.<br>George Bliss Culver,<br>A. B., Stanford University.  |
| Edward Renick Alexander,<br>M. E., Cornell University.   | George Henry Davis.<br>Frederic L. Davison.<br>Sylvester Tillman De Forest.<br>Frederick B. Eichelberger.<br>Richard Drum Engel.<br>Walter Charles English.<br>John Francis, Jr.<br>Hamden McKey Fulgham.<br>Hubert Bruce Fuller,<br>A. B., Yale University. |
| Edward Dunning Anderson.<br>Lewis J. Baley.<br>Joseph H. Barnhart.<br>David Wilkinson Bell.<br>John Randall Boreing.<br>Martin R. Bourne.<br>Charles Eugene Brady.<br>John Brewer.<br>Herbert Irving Britton.<br>Stephen Allen Brooks.<br>Arthur Harrison Brown,<br>B. S., Massachusetts Institute of Tech-<br>nology. | William John Grant.<br>Foster Regnier Greene,<br>A. B., Harvard University.  |
| Robert Crandall Bulkley.<br>Charles Amoss Butler.<br>Arthur Moore Churchill,<br>A. B., University of Wisconsin.  |  |

*Bachelor of Laws—Continued.*

- |                                       |                                |
|---------------------------------------|--------------------------------|
| Charles V. Grunwell.                  | Charles Roy Pendarvis,         |
| Thomas Percy Guyton,                  | A. B., Knox College.           |
| B. S., Mississippi A. and M. College. | Walter Scott Penfield,         |
| William Perry Hahn.                   | A. B., University of Michigan. |
| James William Harbaugh.               | Franklin Pfirman.              |
| Jess Bradford Hawley.                 | Edson Phillips.                |
| José Heria y Fernández,               | John J. Plowhead,              |
| D. C. L., University of Havana.       | A. B., University of Nebraska. |
| Guy Holsopple.                        | Walter Scott Pratt, Jr.        |
| David N. Houston,                     | William Gallup Randall.        |
| Ph. B., Dickinson College.            | Clyde Reed.                    |
| Paul Barton Hulfish.                  | George William Reinmüller.     |
| Axel Josephsson.                      | Benjamin Leroy Rich.           |
| James Power Keleher.                  | Richard Danner Rittenour.      |
| Almon C. Kellogg.                     | Clarence Meredith Roberts.     |
| Paul Victor Keyser.                   | Edwin Milburn Sabin.           |
| Leslie Stilwell Kinnard.              | Fred Ansley Service.           |
| Charles Albert Kreps,                 | Francis Marion Shore.          |
| A. B., Marietta College.              | Ralph Lawson Smith,            |
| Julius Anson Kuck, Jr.                | A. B., Gettysburg College.     |
| William Leonard Larash.               | Charles Alexander Spirk.       |
| James H. Leonard.                     | David Edgar Stephan.           |
| Benjamin Adams Lewis.                 | Charles Johnstone Sumner.      |
| William H. Linkins.                   | Fred West Sylvester.           |
| Thomas Price Littlepage.              | Henry Green Thomas.            |
| Percy N. H. Lombard.                  | Albert Lorenzo Thompson.       |
| Charles Wellington Main,              | Henry Rice Thompson.           |
| A. B., Columbian University.          | Milton Tibbetts.               |
| Lester C. Manson.                     | Thomas H. Tongue, Jr.,         |
| Dan Matthews.                         | B. Lit., Pacific University.   |
| Hartwell Cragin McCarteney.           | Charles Francis Voorhees.      |
| Commodore Perry Melton.               | Alfred Irving Warren.          |
| Earl Cory Michener.                   | Jason Waterman.                |
| Calvin Tarkington Milans.             | Harry Lee Watson,              |
| Noble Mitchell.                       | A. B., Brown University.       |
| Harlan Moore,                         | Frank S. Whitcomb.             |
| A. B., Cornell University.            | E. Russell White.              |
| Carl Muskat.                          | Hugh Hamilton White,           |
| Albert Perley Myers,                  | A. B., University of Georgia.  |
| A. B., Baker University.              | Francis Cushman Wilson.        |
| Paca Oberlin.                         | Louis Clarence Wilson.         |
| George Elmer O'Bryon.                 | Charles Henry Winders.         |
| Roy Clifton Osgood.                   | Charles Henry Wood.            |
| George Edgar Page.                    | Thomas Duncan Wynne,           |
|                                       | Lit. B., Hendrix College.      |

*Master of Patent Laws.*

- |   |   |
|---|---|
| Bernard Barrows,                        | Harry Wallace Bowen,                    |
| S. B., Massachusetts Institute of Tech- | B. S., Massachusetts Institute of Tech- |
| nology.                                 | nology.                                 |
| LL. B., National University.            | LL. B., National University.            |



*Master of Patent Laws—Continued.*

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HONORARY DEGREES.

*Doctor of Letters.*

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*Doctor of Laws.*

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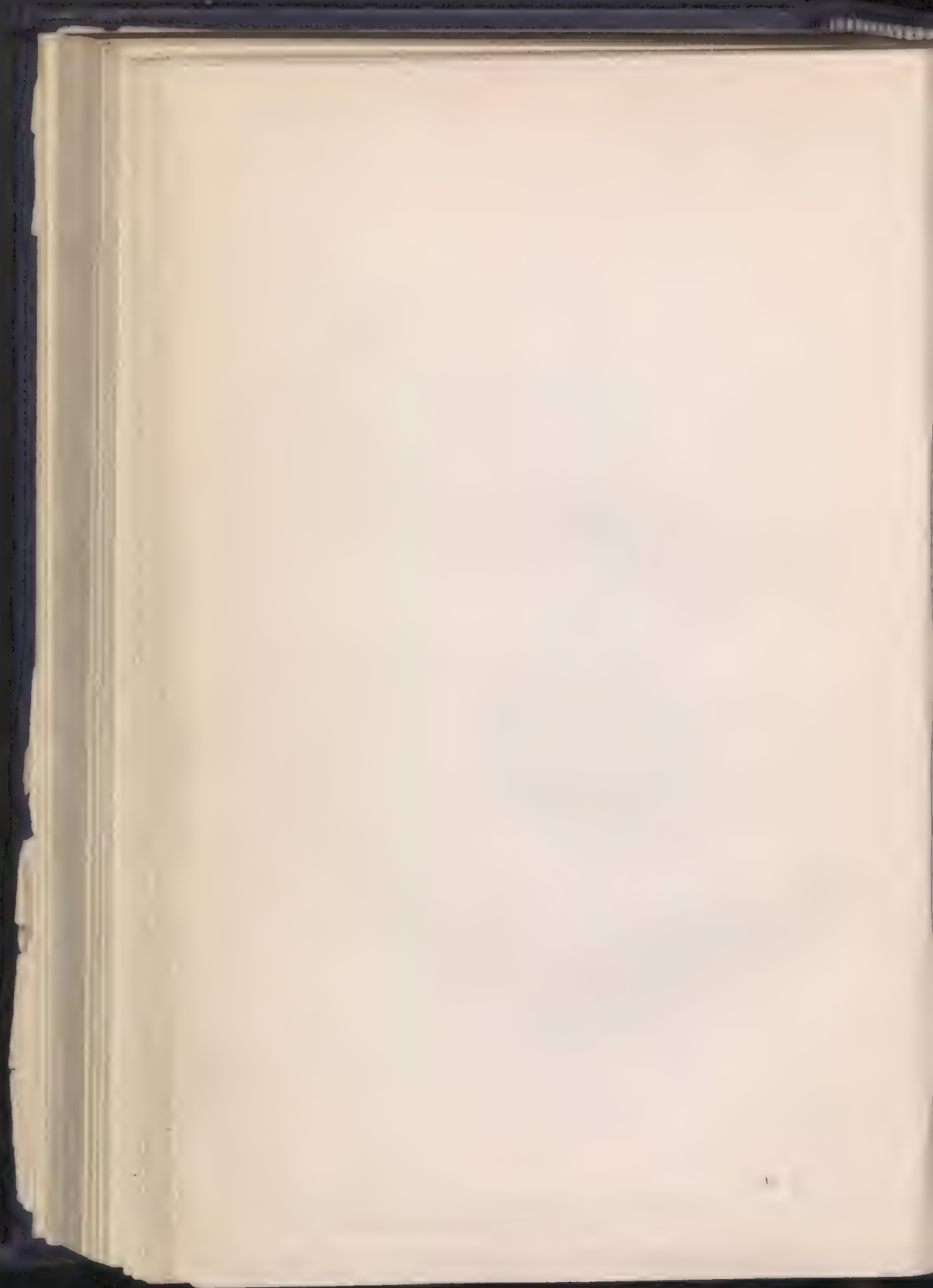
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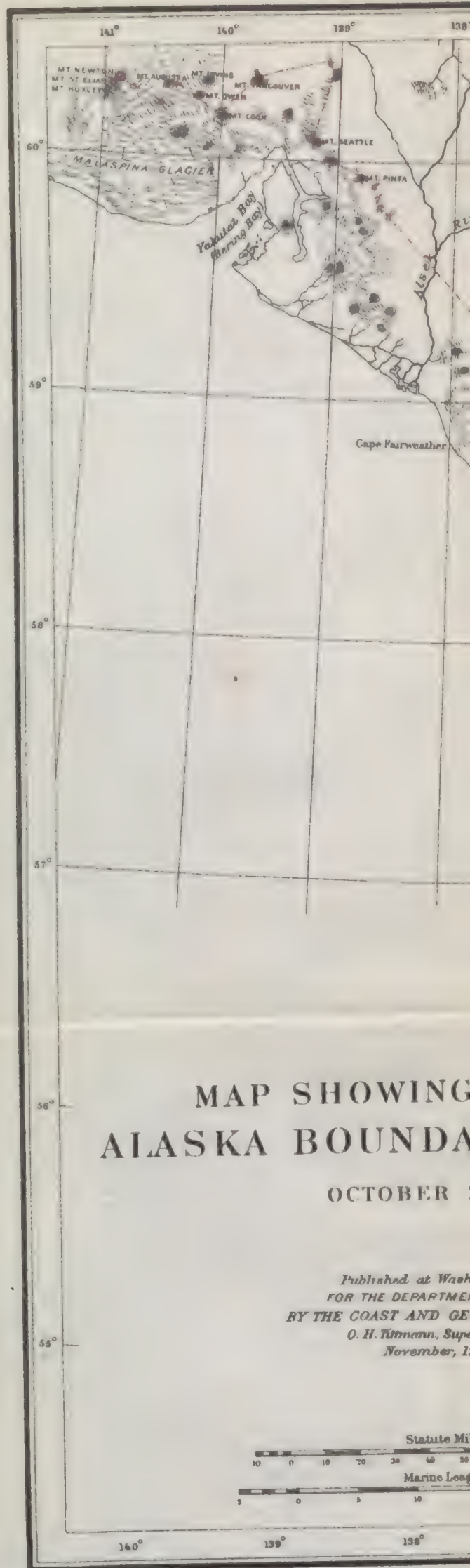




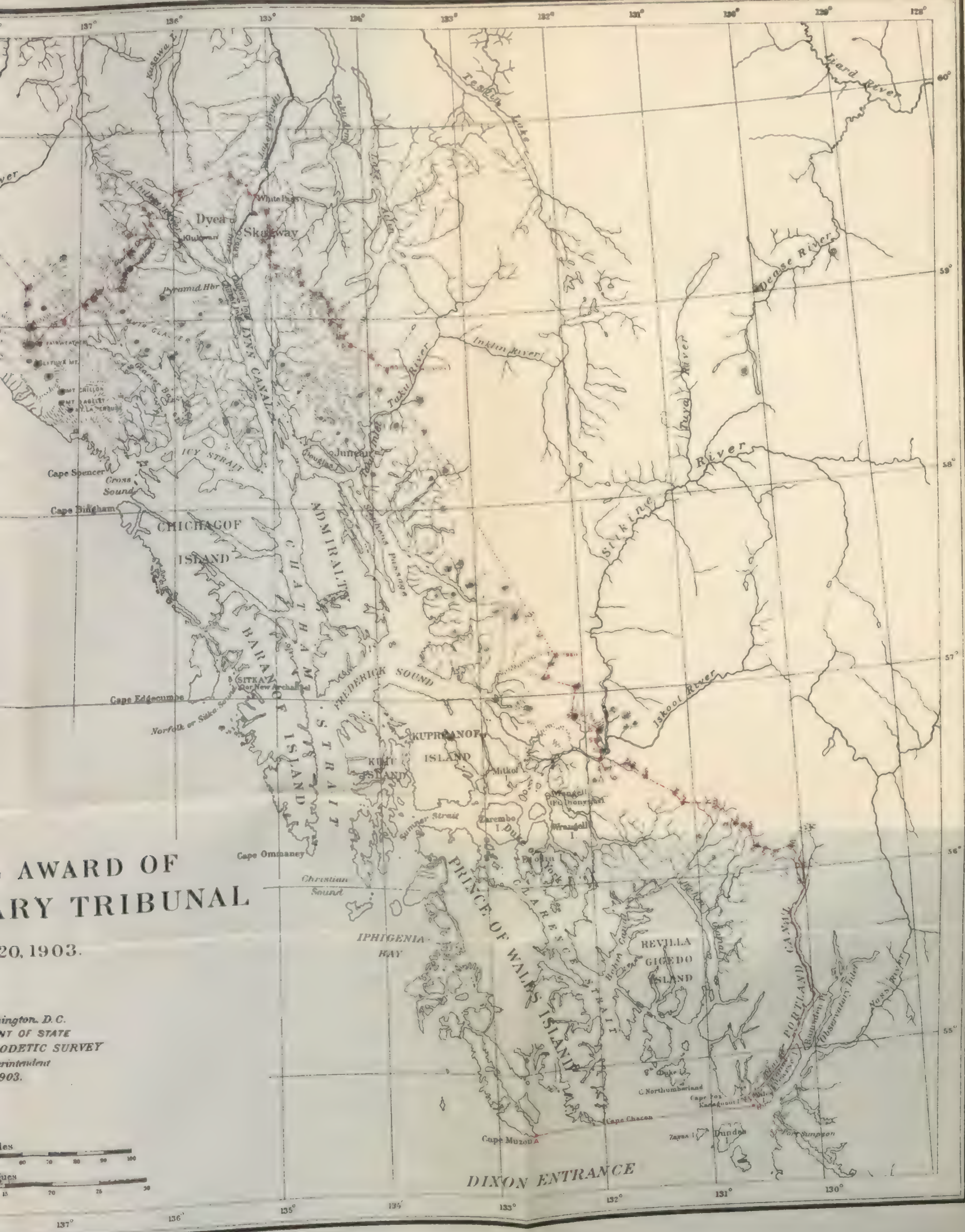
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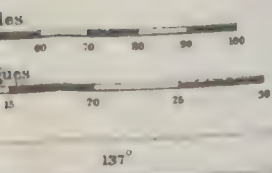




# AWARD OF ARY TRIBUNAL

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ALASKA  
BUREAU OF  
GEOLOGICAL SURVEY  
WASHINGTON, D. C.

## THE ALASKAN BOUNDARY TRIBUNAL

BY HON. JOHN W. FOSTER, LL. D.

A LECTURE DELIVERED IN HIS COURSE IN AMERICAN DIPLOMACY IN  
COLUMBIAN UNIVERSITY, WASHINGTON, D. C., DECEMBER 8, 1903

I MAY be permitted to premise the statement that if the lecture this afternoon appears somewhat elementary in its details, it is to be borne in mind by my visiting auditors that it has been prepared primarily for the students in the School of Diplomacy.

The Tribunal which was recently in session in London and which adjusted the irritating and dangerous controversy respecting the Alaskan boundary as an unique body. It was not an arbitration tribunal in the usual acceptance of that term, as there was no umpire or neutral judge. Its membership was composed of three persons nominated by each government, and as a decision to be effective required the concurrence of a majority of the court, it was necessary for the settlement of the controversy that at least one member should decide against the contention of his own government.

It was insisted by the opponents of the measure that it would prove a useless proceeding, as a majority decision could not be obtained. Its friends, how-

ever, felt that the question was of such a character as to offer a solution by sober-minded judges, before whom the facts should be presented in a judicial manner; and, even if unhappily there should be a failure to secure an effective decision, the effort would not be in vain, as the evidence upon which each party relied in support of its contention would be accessible to the public, and it would be enabled to make an intelligent study of the controversy.

In 1896 a notable conference of the friends of arbitration from all parts of the United States was held in Washington to urge upon our government the making of a treaty of arbitration with Great Britain. That movement resulted in the framing of a convention in January, 1897, signed by Mr. Olney, Secretary of State, and Sir Julian, afterward Lord, Pauncefoot. These two eminent statesmen, while they agreed that most questions of an international character might be referred to an impartial and neutral arbitrator for decision, also agreed that there were other



questions which nations would not stipulate in advance to submit to that method of adjudication. Prominent among these were territorial disputes, and in their convention they provided that all such disputes should be referred to a tribunal to be composed of six judges, three to be selected by each government. That treaty failed of ratification in the Senate by a close vote, but it indicated the method which has been followed with such successful results by President Roosevelt and Secretary Hay respecting the Alaskan boundary.

From the very beginning of our independence as a nation the boundary line dividing the United States and Canada has been the source of almost constant discussion, often of angry controversy, and more than once has brought the countries to the brink of war. As in the Alaskan question, these disagreements have arisen mainly from a want of correct geographic knowledge on the part of the negotiators of the treaties. For instance, in the treaty of peace and independence of 1783, in which an attempt was made, as stated, to set forth the boundary with such accuracy that all disputes which might arise in the future would be prevented, the initial point on the east was fixed at the mouth of the St Croix River, in the Bay of Fundy. But when it was sought to establish the boundary line, it was found that there was no river in that locality popularly known as the St Croix, but that there were two considerable rivers emptying into the Bay of Fundy, both of which had other names than that mentioned in the treaty. This question was settled amicably by the unanimous action of a commission.

It was, however, followed by a controversy as to the ownership of the islands in and near Passamaquoddy Bay. After years of diplomatic discussion, it was referred to a commission of one American and one Englishman, and they

reached a settlement without the intervention of an umpire.

The commission established the line to the head of the St Croix River, but the boundary from the St Croix along the Maine-New York frontier to the St Lawrence proved to be the most irritating, difficult, and tedious of the disputes between the United States and Great Britain. It was first referred to commissioners, who failed to agree, and after much diplomatic wrangling was submitted to the arbitration of the King of the Netherlands, the validity of whose decision was questioned, and it was thrown back into diplomacy. New surveys were made and a temporary boundary established, but it was not observed by the people in the vicinity. Strife occurred; a state of border warfare was created; Congress authorized the President to call out the militia, and voted \$10,000,000 for public defense. An open conflict between the two nations seemed imminent. The commander-in-chief of the army, General Scott, was dispatched to the frontier and through his interposition a temporary border truce was arranged. After still further delays, in 1842 the Secretary of State, Mr Webster, and a special plenipotentiary from Great Britain, Lord Ashburton, agreed upon a treaty fixing accurately that boundary. It is an interesting fact that the essential points of that dispute were similar to those as to the Alaskan boundary. The "highlands" and the "ocean" became the words about which the northeastern controversy raged. Likewise the last subject of discussion at London was, in great measure that respecting the phrase in the treaty, "the summit of the mountains," and the words "ocean" and "coast."

The line through the St Lawrence and the Great Lakes was adjusted by commission after careful surveys, by which various islands which had been claimed and occupied by the Canadian



were transferred to the American side of the line, and others claimed by the Americans were placed on the Canadian side.

The fixation of the boundary from Lake Superior to the northwestern point of the Lake of the Woods was entrusted to a commission, but after five years of labor, during which they visited the region and expended \$200,000 in surveys, they failed to agree. Under the stipulations between the two governments, the question should then have been referred to arbitration; but the experience in the arbitration of the Maine boundary did not encourage such a course. After long delays this portion of the frontier was adjusted by the Webster-Ashburton treaty of 1842, but this settlement has not proven completely satisfactory, owing to defective landmarks, as it is charged by Canadians that the United States Land Office has surveyed, platted, and sold to Americans a considerable extent of land in the Minnesota-Wisconsin section which really belongs to Canada.

The line from the Lake of the Woods to the Rocky Mountains was fixed by the treaty of 1818 to run along the 49th degree of north latitude.

The boundary from the Rocky Mountains to the Pacific Ocean remained for forty years a subject of controversy. It engaged the attention of successive administrations up to the presidency of Mr Polk, various treaties and arbitral propositions being advanced only to be rejected by one or the other of the two nations. The claim to the whole territory on the Pacific Ocean from California to the Russian possessions at  $54^{\circ} 40'$  was asserted by the Democratic National Convention of 1844, and under the cry of "Fifty-four forty or fight" entered largely into the campaign which resulted in the election of Mr Polk. In his first message to Congress he declared our title to this region to be "clear and unquestionable," and he

recommended Congress to extend jurisdiction over it. John Quincy Adams, who was recognized as the highest living American authority on international questions, held with President Polk that our title up to  $54^{\circ} 40'$  was complete and perfect.

The controversy grew so animated that the chances of war were freely discussed; but the two nations found a better way of reconciling their differences, and, after anxious deliberation, Mr Buchanan, Secretary of State, and the British Minister, signed a convention in 1846 whereby the line of the 49th parallel was extended from the Rocky Mountains to the Pacific Ocean. By this act the vast domain now embraced in British Columbia was yielded to Great Britain, although our title to it had been declared unquestionable by a national convention, by the President in his message, by Congress through joint resolution, and by our highest authorities on international law.

One more step was necessary before our chain of title to a fixed and unquestioned line from the Atlantic to Pacific should be complete. The treaty of 1846 provided that the water line of the boundary should follow the middle of the channel which separates the continent from Vancouver Island. In this body of water lie a number of islands, and it was not clear which was "the middle of the channel" among these islands. In this state of uncertainty the islands were being populated by both Americans and Canadians, and conflicts of authority arose. Efforts were made to reach an agreement through diplomacy, but they failed. In 1856 a joint commission was appointed, but the members, after visiting the region in dispute, were unable to agree. The subject went back into diplomacy, and more than ten years were spent in fruitless discussion. In 1859 the settlers on San Juan Island came into conflict, the troops of the two coun-



tries became involved, and a collision seemed imminent. A second time the services of General Scott were invoked, and he arranged for a joint and peaceful occupation by troops of the two nations, but with difficulty were they able to prevent conflicts of the civil authorities. Finally, when the Joint High Commission to arrange the Alabama claims and other matters met in Washington in 1871, the question of the true channel was submitted to the arbitration of the Emperor of Germany, and he rendered an award in favor of the contention of the United States.

The foregoing review shows, first, what a perennial source of trouble have been our boundary disputes with Canada, and what a threatening peril to our peace it is to leave them unsettled. It is seen that every step of the frontier line, from the initial point on the Atlantic to the last water channel on the Pacific, has been a matter of controversy, and sometimes of such bitter contention as even to threaten war. Second, our public men and the government have not found a strong title to territory a bar to the submission of boundary questions to the adjudication of a commission or an arbitrator. In repeated instances have we given up territory which has been in possession of our citizens for years. Third, while our northern boundary has been adjusted by means of treaties, commissions, and arbitration, the Alaskan Tribunal was the first instance in which an equal number of jurists from each government have sat as a court, observing the forms of judicial proceedings, and rendering a decision binding upon the parties litigant. The result of its labors certainly confirms the wisdom of the President and Secretary of State in devising this method of adjustment of a most embarrassing controversy.

As there seems to exist in the public mind a vague and ill-defined idea of the questions at issue between the two governments which were submitted to the

Tribunal for adjudication, it may be well to make as brief a statement as may be of these questions. They depended entirely for their solution upon the construction and application of the stipulations of the treaty entered into in 1825 between Great Britain and Russia. This treaty defined the rights of the two parties, first, in the North Pacific Ocean, and, second, on the northwest coast of North America. In order to accurately fix the latter a boundary line was agreed upon dividing the possessions of Russia from those conceded to Great Britain, and this boundary consisted of a water line and one upon the mainland.

The rights of the parties continued to be governed by this treaty up to 1867, when Russia ceded and transferred all its territorial possessions in America to the United States, and in doing so she inserted in the treaty of cession to the United States the exact text of the treaty with Great Britain of 1825 relating to the boundary. Hence, in order to determine the territorial rights of Alaska and Canada, recourse must necessarily be had to the Russo-British treaty.

In the official and public discussion which preceded the treaty of January 24, 1903, creating the Alaskan Boundary Tribunal, and in the document submitted by the two governments to that body, as also in the oral argument before it, much was said about the historical facts and negotiations preceding and attending the signing of the treaty of 1825, and the acts of the governments and their officials since that event, such as the publication of maps and charts, occupation of the territory in dispute, and the admissions or statements of officials. But it was conceded on both sides that all these matters had no other influence on the questions at issue than to aid in the interpretation of the stipulations of the treaty.

The negotiators of the treaty of 1825 in setting forth the boundary line, were governed by the geographical knowl-

edge within their reach at that day. As early as the sixteenth century explorers had visited the northwest coast of America, but up to the last decade of the eighteenth century very little accurate knowledge of that region existed. Between 1792 and 1794 Captain Vancouver, of the British navy, visited this coast, sent out by his government to discover the supposed passage or water connection between the North Atlantic and Pacific Oceans. He made very careful surveys of the coasts of the continent and islands, and his narrative and charts, giving detailed results of his surveys, were published in 1798.

These were the main sources of information upon which the negotiators sought to fix in the treaty of 1825 the boundary line between the Russian and British possessions.

They described the water line as follows: "Starting from the southernmost point of the island called Prince of Wales Island. . . . the said line shall ascend northward along the passage called Portland Channel as far as the point of the mainland, where it reaches the 56th degree of north latitude." The first matter which the tribunal had to determine was, what is the Portland Channel as described in the treaty, and



Map Showing Boundary in Portland Canal



to draw the line in accordance therewith from the southern point of Prince of Wales Island to the 56th degree of north latitude.

An examination of the maps will show that the body of water variously described as Portland Channel or Canal is composed in part of two inlets from the ocean, one a broad and easily navigable channel to the south, and to the north a narrow, somewhat tortuous, and unsafe passage. Between these passages lie a group or series of islands. The American contention was that the broad or southern passage was the Portland Channel of the treaty. The British claim was that the narrow or northern passage was the one intended by the negotiators. Vancouver's charts and later maps favored the American view, but his Narrative seemed to support the British case. The Tribunal decided against the American contention, but did not accept in full the British claim, as the two larger islands only were made British territory, and the two smaller islands involved in the controversy were awarded to the United States. This part of the decision has occasioned the most bitter criticism and is the chief matter of complaint in Canada. This feeling is in part explained by the fact that Port Simpson, situated on the southern side of the entrance to Portland Canal, has been fixed upon as the Pacific terminus of the newly projected transcontinental railway, and it was urged that, for strategic purposes, all the islands on the north or opposite sides should belong to Canada.

The other work of the Tribunal was to determine the mainland boundary line. The treaty provided that from the head of Portland Channel the line should be drawn to the 56°, and "from this latter point the line of demarcation shall follow the crest of the mountains situated parallel to the coast. . . . That whenever the crest of the mountains which stretch in a direction par-

allel to the coast from the 56th degree of north latitude . . . may lie at a distance of more than ten marine leagues from the ocean the boundary between the British possessions and the coast strip (*lisière*) mentioned above as having to belong to Russia, shall be formed by a line parallel to the sinuosities of the coast, and which can in no case be more distant therefrom than ten leagues."

Vancouver saw as he sailed up and down the northwest coast of America, as likewise modern tourists, all along the Alaskan mainland a constant series of mountains. He made no explorations in the interior of the continent, but in drawing his charts he depicted a regular and continuous chain of mountains from the head of Portland Canal up to Mt St Elias, running around the heads of all the inlets and arms of the sea. The map-makers who succeeded Vancouver adopted with more or less accuracy this feature of his charts. It was this topographical indication which the negotiators had in view when they drafted the text of the treaty just quoted. They regarded this supposed mountain chain as a natural and proper boundary.

But later explorations have shown that the mountain chain depicted by Vancouver and other cartographers of the period preceding the treaty had no existence in fact, but that the mainland, extending back for ten leagues and more from the coast, is what has been termed "a sea of mountains," with no dominant and well-defined chain. The American claim, therefore, was that the natural boundary contemplated by the treaty having no existence in fact, the ten marine league line mentioned therein should apply, and that the United States boundary should follow the sinuosities of the coast and always ten marine leagues therefrom, passing around all the inlets of the sea.

On the other hand, the British con-



tention was that the crests of the mountains nearest to the sea should be taken as the boundary line. The Canadian experts claimed to have established a series of peaks or mountain chains sufficiently parallel to the coast to meet the requirements of the treaty. In conformity with this theory a boundary line delineated on the map was put forward, which rarely diverged more than five miles from the sea and often was less than a mile therefrom, which cut across the heads of all the inlets, divided the "coast strip" or *lisière* of the treaty into sixteen disconnected sections of territory, and transferred to Canada towns, settlements, industrial establishments, and mines which had been in undisputed possession of Americans for many years.

The Tribunal decided that, under the treaty, the United States was entitled to a continuous strip of territory which extended around the heads of all the inlets, thus excluding all contact of British territory with the sea from Portland Canal north to Mt St Elias. It also fixed the eastern or interior boundary line at designated mountain peaks to conform to this decision. While this interior line did not extend ten leagues from the ocean (the distance put forward in the case of the United States), it was a substantial acceptance of the most material claim of this country, and the result has been so regarded on both sides.

Much time was consumed and learned argument applied to the meaning of the terms of the treaty, "the crest of the mountains," the "ocean," the "coast," "sinuosities of the coast," etc., which can not be followed in the time at my command, but the foregoing is, I trust, a sufficient exposition to enable those not already informed to understand the two principal points at issue and how they were settled.

I turn now to a consideration of the composition, the preliminary work, and

the proceedings of the Tribunal. It has already been stated that it was made up of three members appointed by each government. The treaty creating the Tribunal required that its members should be "impartial jurists of repute, who shall consider judicially the questions submitted to them, each of whom shall first subscribe an oath that he will impartially consider the arguments and evidence presented to the Tribunal and will decide thereupon according to his true judgment."

The President nominated on his part Elihu Root, of New York, Secretary of War; Henry Cabot Lodge, Senator of the United States from Massachusetts, and George Turner, late Senator of the United States from the State of Washington. Since the dissolution of the Tribunal it has been disclosed that the Canadian Government complained to the British Colonial Office that the members nominated by the President of the United States were not such persons as were contemplated by the treaty, to wit, "impartial jurists of repute;" but it does not appear that the British Government regarded this complaint of such a serious character as to bring it to the attention of the President. It was alleged that one of the American members had expressed himself publicly, sometime previous to his appointment, as strongly convinced of the justice of the claim of his government. It was also objected that no one of the three was taken from judicial life, and that they all might be considered as political rather than legal representatives of their country.

Whatever appropriateness there may have been in the objections urged by Canada, the sequel showed that the selection of the President was entirely fitting. It would be difficult to name three men in the United States with greater experience in and knowledge of public affairs, with better trained minds for the work they had to do, and who



possessed in a greater degree the confidence of their countrymen. It will doubtless be gratifying to you to state that they acquitted themselves in their delicate positions with entire credit to their country, without a word of criticism of their conduct, so far as I am aware, in either official or social circles of the British capital, and, without indulging in invidious comparisons, it may be said that they displayed a judicial temperament at least equal to their Canadian colleagues, and were as susceptible to the arguments of opposing counsel. On one of the points strongly contended for by the United States, that of Portland Channel, they decided against their own Government, an example which seems to have had no effect on their Canadian associates.

Even in the United States some press criticism has been passed upon the action of the President in this matter, and it has been asserted that he should have named judges of the United States Supreme Court or other high judicatory for the positions. It is due to the President to state that he offered the appointment to one of the justices of the Supreme Court, and that the latter declined, as it is understood, on the ground that he did not regard the post as in the proper line of his duties, and that it was not just to his associates to accept a position which would impose additional labor upon them. A second justice was then approached with a like result. There seems to be a growing sentiment in this country that the members of our highest court should not be called upon to discharge functions of a semi-political character, such as those relating to boundary disputes, nor that they should be burdened with additional duties when their labors are already sufficiently onerous. A similar view has been expressed by some of the British press since the decision of the Tribunal, to the effect that the Lord Chief Justice of England should not have been placed

in the embarrassing position of having to pass judgment against his country upon a question so greatly political, and which has consequently exposed him to bitter criticism.

The British Government named as members of the Tribunal Baron Alverstone, Lord Chief Justice of England; Sir Louis A. Jetté, Lieutenant Governor of Quebec, and John D. Armour, Judge of the Supreme Court of Canada. Judge Armour died soon after his appointment, and the vacancy was filled by A. B. Aylesworth, Esq., a prominent member of the bar of Toronto.

The duty of the Tribunal was prescribed to be to render a decision which was to be made up of answers to seven questions specifically set forth in the treaty. Experience has shown that the work of courts of arbitration and international commissions is not infrequently nullified or impaired by their members exceeding their powers in rendering their decision, or by departure from the terms of reference. All error in that direction was avoided in this instance by the careful manner in which the points at issue were set forth in the treaty.

The Case of each of the two parties was required to be prepared and delivered to the opposite party within two months from the date of the exchange of ratifications of the treaty, which occurred March 3, 1903. This was a short time in which to do such an important work: but, as the matter had already been the subject of much discussion and research, it was practicable to accomplish it in the period fixed. The Case for each government consisted of a statement of its views and contentions on the seven questions submitted to the Tribunal, accompanied by the documents, the official correspondence, and all other evidence in writing or in print upon which it relied. The Case of the United States, with the appendices, constituted a quarto volume



of about 650 pages and an atlas of maps, and the British case was of approximately the same length and character.

After receipt by each government of the Case of the other, a Counter-case in reply thereto was to be prepared and delivered within a like period of two months. Upon receipt of the American Case the British agent asked for an extension of two months, stating that it would be impossible to prepare a Counter-case for Great Britain within the period fixed by the treaty. Our government declined to agree to this extension of time on the ground that the reasons contemplated by the treaty had not been alleged and did not exist. The Counter-cases were accordingly exchanged within the period fixed therefor.

The third step in the preliminary proceedings was the preparation by counsel of a printed Argument, based upon the Case and Counter-case, and this also was to be prepared and delivered within two months after receipt of the Counter-case. This delivery was effected on September 2, and on the 3d of that month the Tribunal held its first meeting in London.

There was set apart in the Foreign Office in Downing street a series of apartments for the use of the Tribunal and those connected with it. The public sessions were held in the ambassadorial reception-room, a large and commodious hall, well lighted and artistically decorated. Adjoining this was a consultation-room for the private sessions of the Tribunal, and connected with it was the state dining-room, where a bountiful collation was served at the daily recess of the Tribunal. Adjoining the other end of the ambassadorial hall were a number of spacious rooms devoted to the use of the agent and counsel of the United States and the British agent and counsel.

I mention this matter in some detail in order that you may contrast it with

the inadequate accommodations which are provided by our government for its foreign office, the Department of State. It has no facilities whatever for receiving and entertaining courts of arbitration, international commissions, and special diplomatic missions which are so frequently assembled in Washington. When the Anglo-American Joint High Commission met here a few years ago, quarters had to be taken at one of the hotels for its sessions, and we experience the same mortification almost every year. It is earnestly to be hoped that the present Congress will not adjourn without adopting adequate measures to remedy this discreditable condition and provide the Department of State with such accommodations as will enable our government to receive with proper courtesy its international guests.

The first meeting of the Tribunal was confined to an exchange of credentials of the members of that body and of the agents of the two governments, fixing the days and hours of the sessions, and the method which should be observed by counsel in the oral argument which was contemplated by the treaty. It was arranged that sessions should be held five days in the week, adjourning on Fridays to the next Monday, and that they should continue from 11 a. m. to 4 p. m. The British counsel were to open the argument, and it was to be closed by the American counsel, three lawyers on each side to speak alternately. The Attorney General of England, Sir Robert B. Finlay, opened for Great Britain, followed by David T. Watson, Esq., for the United States; Mr. Christopher Robinson, of Canada; Hon. Hannis Taylor for the United States; the Solicitor General of England, Sir Edward H. Carson; and Hon. J. M. Dickinson closing for the United States.

An adjournment of nine days was taken for the convenience of counsel, and on September 12 the oral argument began. It occupied eighteen days, the



only interruption being an adjournment upon the announcement of the death of Sir Michael H. Herbert, the British Ambassador in Washington, and to attend the funeral services held in memory of this young and brilliant diplomatist, who had united in framing and signing the treaty by which the Tribunal was created.

The time consumed in the oral argument may attract the notice of lawyers who are accustomed to the more expeditious methods in our domestic courts, the Supreme Court of the United States, for instance, rarely permitting arguments, even in important cases, to extend beyond two or three days; but such a period is not unusual in international tribunals. In the *Fur Seal*, or *Bering Sea* arbitration at Paris in 1893, the oral argument occupied forty-three days.

A noticeable feature of the London Tribunal was the marked contrast in the manner of argument or delivery between the British and American lawyers. The former were very deliberate in speech, rarely raising the voice, accentuating words, or using gestures, they sought to impress the court by their careful presentation of the facts and the cogency of their reasoning. This method was doubtless very effective, but when it extended in the person of one advocate through six or seven days it became somewhat tedious. On the other hand, the American counsel were vigorous in speech, frequent in emphasis, and somewhat active in gesture. They did not hesitate to indulge in a witticism to impress a point, and sometimes even ventured upon an amusing anecdote to illustrate their argument, which seemed to be welcomed by the court and enjoyed by the opposing counsel.

It is gratifying to note that during the entire sessions of the Tribunal the utmost good feeling and courtesy prevailed, not a single untoward incident

occurring to mar the harmony of the proceedings.

The oral argument was closed on October 8, after which the Tribunal went into secret session. On October 20 its decision was delivered to the two agents representing their respective governments. As the treaty which provided for the adjudication and created the Tribunal did not go into effect till March 3, 1903, the entire proceedings occupied less than eight months, which constitutes an instance of promptness in international adjudication of magnitude and gravity almost without parallel.

As I have already given the substantial results of the decision, it is hardly necessary to repeat or elaborate them. The engrossed decision or award in duplicate was signed by Lord Alverstone and the three American members. The decision was accompanied by a series of five maps indicating thereon the boundary as set forth in the decision. These maps were attested by the signature of all the six members of the Tribunal.

The two Canadian members have been criticised, too severely, I think, for their action in refusing to sign the decision. They might find their defense in the language of the treaty itself, which says: "The decision . . . shall be signed by the members of the Tribunal assenting to the same." They also might cite distinguished precedents for their conduct. The Lord Chief Justice of England, Sir Alexander Cockburn, who represented Great Britain on the arbitration tribunal at Geneva which adjusted the Alabama claims, not only refused to sign the award, but accompanied it with a vigorous protest and rather unseemly conduct.\* A similar

\* Hon. Caleb Cushing, one of the American counsel, in referring to the closing session of that Tribunal, said: "To the universal expression of mutual courtesy and reciprocal goodwill there was but one exception, and that exception too conspicuous to pass without notice. The instant that Count Sclopis [the President] closed, and before the sound of his last



precedent is to be found in the Halifax fisheries arbitration of 1877, when the American member not only refused to sign the award, but questioned its validity. A better practice was observed in the Fur Seal arbitration at Paris in 1893. The two American members, Justice Harlan and Senator Morgan, were outvoted on almost every one of the six points submitted to the Tribunal; but, without withdrawing their votes, they cheerfully united with their colleagues in signing the award.

The two Canadian members of the London Tribunal did, however, incur more deserved criticism in their action in giving to the press, on the same day the decision was announced, a carefully prepared interview, in which they declared that the decision was not judicial in its character, the plain inference from which was that the majority members of the court had been influenced by improper motives, as the treaty required that they should determine "judicially" the questions submitted to them. They further gave it to be understood that their British colleague, after agreeing with them in their position as to Portland Channel, changed his attitude and voted with the American members; and they added that there is "no process of reasoning whereby the line thus decided upon by the Tribunal can be justified." It is hardly necessary for me to accentuate the impropriety of judges arraigning in the public press their colleagues on the bench for improper motives and inconsistent conduct. Lord Alverstone has said, referring to this matter, that he declined to justify or explain his conduct, because such a course would be a death blow to the confidence reposed in

words had died on the ear, Sir Alexander Cockburn snatched up his hat, and, without participating in the exchange of leave-takings around him, without a word or sign of courteous recognition for any of his colleagues, rushed to the door and disappeared, in the manner of a criminal escaping from the dock, rather than a judge

the British bench. He needs no vindication. No living man has had greater experience in international adjudications, and no one has done more to preserve peace and good will between the two English-speaking nations.

In view of the substantial failure to sustain the British contention as to the boundary, it is not strange that there have been angry criticism and bitter disappointment expressed in Canada. Similar feelings were manifested in England over the Geneva award. The people of the United States were very angry at the Halifax award, and were by no means pleased with the result of the Fur Seal arbitration at Paris; but the sober second thought of these Anglo-Saxon peoples has been that, however disappointing the outcome, this process of adjusting international disputes is better than to continue the controversies, and infinitely better than a resort to war. The British agent, Hon. Clifford Sifton, immediately after the announcement of the decision in London, said publicly in the most kindly spirit: "I have to say that the agent and counsel of the United States have acted with perfect courtesy and good faith throughout." And since his return to Ottawa and the resumption of his place in the Dominion cabinet he has announced that the decision will be accepted and carried into effect in good faith.

President Roosevelt has been credited by the public press with the statement that the result at London was "the greatest diplomatic victory of the United States during the present generation." It is not becoming in one who was a participant in the proceedings so characterized to discuss this declaration. I

separating, and that forever, from his colleagues of the bench. It was one of those acts of discourtesy which shock so much when they occur that we feel relieved by the disappearance of the perpetrator."

The Treaty of Washington, by Caleb Cushing. New York, 1873, p. 128.



may say, however, without impropriety that the greatest value of the decision is not in the detailed terms of the award, but in the fact that it brought to a conclusion an irritating controversy, that it removed a serious obstacle to better relations between these two neighboring countries.

The chief credit on the American side for this result is due to the President and the Secretary of State, who had the courage, in spite of the prevailing sentiment that it would be a useless pro-

ceeding and against many protests, to submit the question to a judicial tribunal. Still greater credit is due the Prime Minister of Canada, Sir Wilfrid Laurier, who, in the face of stronger opposition, consented to such a reference. While the outcome is not such as he desired, it must be a relief to him to know that this dangerous subject has been removed from the arena of controversy, and I feel sure that in time his people will recognize that he acted wisely and for the best interests of his country.

## ADDRESS OF PRESIDENT NEEDHAM AT THE OPENING OF THE DEPARTMENT OF ARTS AND SCIENCES

We enter to-day upon the eighty-third year of University life, and this first meeting calls to the minds of some present the losses which we have sustained during the vacation period. Doctor Huntington, who for sixty years was an honored professor in this institution, has finished his work and passed beyond the shadow that divides the seen from the unseen, the known from the unknown. We recall with profound pleasure his work and life. He was a man of great learning, of splendid character, and he possessed a most lovable spirit. His love for this institution found expression both in words and in self-sacrificing service. His work was well done. His interest in the students under his care and instruction was deep and abiding. He loved his work and he loved those for whom he worked. His temper and spirit were beautiful and his faith in truth and God was a steady as well as an undying light; no adversity could lessen it. Even the unbeliever in the Christian faith stood unquestioning and admiring in the presence of his life. We shall ever hold his memory dear, and there are many of us who will find it sweet and inspiring to walk and talk in the afterglow of his life.

We have sustained another loss in the death of Professor Millis. He was connected with the Naval Observatory, and for three years had been an instructor in astronomy in the University. He was a man of fine character and attainments, much beloved by all who knew him. He seems to have left an unfinished life, for he died in early manhood with much promise of work before him.

Life is filled with lights and shadows; the shadows fall upon us and influence our character and work but do not in

any degree excuse us from duty. The highest ideals of life are in service. This means activity and a forward look. We shall do well, therefore, to turn our thoughts to the immediate future and take heed to our steps.

1. It is my purpose to present to you briefly the reorganization of the educational work which goes into effect to-day, and to speak of some of the plans of the University. You who are students and graduates, and you also who are the friends of the University are to be taken into our confidence, for we rely upon your active co-operation and help in carrying forward the plans and work which must, in a large degree, make the history and reputation of the University. The University has had an honorable and a long career. Its beginning dates back into the first quarter of the last century. The value of the work done is approved by the living and standing of every man. Men and women who have gone out from it have held, and many are now holding high and honorable positions of service in the world. It is no reflection, however, upon the past to say that we have new plans for the future and that the University is entering upon a new era in its advancing life. Institutions, like men, must move forward to higher service if they meet the reasonable expectations of mankind. Times and conditions change and for that reason the agencies which fit men for these new conditions must change and advance. The beautiful city in which we live has had a marvelous growth and to-day we are surrounded by its busy life. These buildings in which we meet and work are rendered less desirable for educational purposes by the distracting movement of the



city's traffic. We have outgrown the accommodations of the old habitation. A greater service requires more room and new facilities. Enlarged life should have greater space to work out its larger aims. To meet these demands the University has selected a new site, and the first purchase of land has been made. In the selection of this site careful thought has been given to the needs of a great University. The special advantages and facilities for educational work which exist at the National Capital—libraries, laboratories, museums and archives for original research, and the service which distinguished men in the public service of the government may render to the University—have all been considered in determining the new location. The experience of all universities has been that ground enough was not secured in the beginning to provide for growth; we seek, therefore, a large tract of ground for buildings and we hope to make additional purchases. A university should also have large open fields for light, air and recreation. We can not overestimate the influence upon character and life which comes from extended views and contact with natural scenery. Bishop Spalding, an eminent authority upon the subject of education, says:

"In the eyes of the old Greeks, who first made education a science, the scholar was an idler—one who had leisure to look about him, to stroll amid the olive groves, to let his eye rest upon the purple hills or the blue sea studded with green isles, to listen to the brooks and the nightingales, to read the lesson the fair earth teaches more than that imprinted on parchment; and the school must still preserve something of this freedom from constraint, must encourage the play of body and of mind, the delight natural to the young in the exercise of strength of whatever kind, and thus as far as possible lighten the labor and drudgery of elementary

studies with thought of liberty, of beauty, and of excellence."

The new purchase contains about five acres of land and fronts south upon the Potomac Park. The Potomac Park, containing over eight hundred acres, will be the driving park of the city, and in time the most beautiful park of its kind in the country. Additional appropriations will be made each year until the Park is completed and beautified. The river, which bounds the Park on the west, will furnish excellent opportunity for boating clubs. Fronting east is the President's Park and the Mall leading to the Capitol. On either side of the Mall are the permanent Government buildings, with their libraries and laboratories open to the student, and all within walking distance of the University. These public grounds furnish a space of more than thirteen acres, much of which is already improved and adorned. Here stands the Monument, always reminding us of Washington, so dear to America and so honored in all the countries of the world. If the city of Washington grows to be a city of millions, as many of us believe it will, the University will still be at the centre of the city's life and these environments so desirable, will never be removed. Placing yourself at a favorable point you will find that this site commands the most pleasing and inspiring views and you will be surprised to see how near are the great facilities afforded the student by the Departments of the Government. We may congratulate ourselves upon having a part in this great movement for the University, and we congratulate those of succeeding years in having so beautiful a location and such splendid facilities for acquiring an education.

2. The educational work of the University in the Department of Arts and Sciences has in later years been carried on in three separate schools, the College, the Corcoran Scientific School, and the



**School of Graduate Studies.** The new organization of this work, which goes into effect to-day, does away with these schools and establishes one department, of which we are all members—the Department of Arts and Sciences. The educational force is organized with head professors, instructors, and assistants to carry on the work. The head professor is required to divide his subject into three sections: first, a two-year general culture course; second, a three-year specialized course; and third, a course for original research. The work during the entire period will be under the general charge and supervision of the head professor; around him will be the professors and assistants who are carrying on the work in the subject under his charge. The requirement for the Bachelor's degree will consist of the first section (the general culture course) in a required number of studies, and in addition one year of a specialized course. The remaining portion of the specialized course, and the original research course will be taken by students seeking the higher degrees in arts and sciences. The advantages of this arrangement are, first, that the work of the student is progressive from the time he enters the institution to the end of the research section. He will not have to go over any of the ground twice in any subject, and taking all the sections outlined, he will cover the whole field of study in the subjects pursued. In the second place, it gives the student, during his entire student life at the University, the benefit of the best minds upon each subject, and this will strengthen the undergraduate work. It will intensify the work and make it possible to accomplish more in less time. The guiding hands of the best men in the University will be felt throughout the course, and the teaching and influence of every professor and instructor will have full scope and free action. This arrangement gives opportunity for

the University to avail itself of the services of many of the scientific men who are engaged in the Government service. There are, in the city of Washington, a thousand men whose knowledge and experience and ability to teach would be of great value to any University. And, because of their employment, they can be brought into the scheme of education at the right point in the subject, and give the students the benefit of their valuable experience and knowledge. In this way we shall utilize to as large an extent as possible the services of many of these distinguished men, thus adding to the force and efficiency of our able faculty.

3. In arranging the courses for undergraduate work, the classes are so arranged that a student giving his full time to the work may complete his course for the Bachelor's degree in third year work, specialized and three years, electing, as a part of his professional courses. In making this change we have increased the hours of study per week, so that in the three years' course the student is obliged to take from forty-eight to fifty hours of University studies, and in addition he may take ten or twelve hours of professional studies. Electing work in the professional departments in the last year of his course enables the student to complete his college course and a three years' professional course in five years, or taking a four years' professional course in six years. That we have not reduced the standard or value of the degrees in the Bachelor of Arts or the Bachelor of Science courses will be manifest to every one who gives careful consideration to the work required. The minimum of requirement for the Bachelor's degree is sixty hours. In the first place, from forty-eight to fifty hours of University studies are required and this is the extent of requirement in some of the largest and best universities in the country. In the second place, it must



be observed that there has been a marked change in the method of teaching in the professional and technical schools. The historical method of treating all subjects prevails and the presentation of a subject is systematic and scientific. The subjects themselves, when treated in this way, constitute a fine training for the student, are of great cultural value, and constitute a large part of the highest learning. The three years' course will give the student that attainment in knowledge and that equipment as a scholar which must maintain a high standard of value for the degrees, while it shortens the time required for the higher education of men and women.

4. Columbian has been fortunate in the past in the students who have taken advantage of its college course and who have given their whole time to the work of the University. We can not overestimate the value of constant and systematic work in this course. We hope that the number who come for the sole purpose of pursuing courses in the University will increase. Upon the new site dormitories will be erected and rooms provided for social and fraternity purposes, which will add greatly to the advantages offered by Columbian to this class of students, furnishing attractive rooms to live in and a college life.

The city of Washington furnishes, also, a very large class of students who can give only a part of their time to college work. They are engaged in the service of the Government. It should be remembered that these students are not in the same condition or under the disadvantages of men who are engaged in commercial and industrial pursuits. In industrial and commercial occupation the hours are long, the pressure of competitive business is constant using up the nerve forces and lessening the power for study in the class-room. The men in the Government Departments having

short and regular hours, can arrange the balance of their time in each day so as to do regular and systematic college work. Their work in the Departments, when continuously and faithfully done, is not so exhausting and does not use up the mental and nervous forces as does competitive business. These men, as a rule, are of excellent attainment for college work. In addition to their preparatory work for the college they have passed the civil service examinations and obtained their positions upon their standing in these examinations. To make the work good and possible to every one, and to maintain the reputation of our curriculum and the value of our degrees in the educational world, we have lengthened the time within which the Bachelor's degree may be earned by this class of students.

As stated, the man giving his whole time may obtain his Bachelor's degree in three years; the classes are so arranged and rotated that a student giving only part of his time to the work may earn the degree in five years; the one makes his sixty hours in twenty hours per week, in three years, while the other makes his sixty hours in twelve hours per week, in five years. This is the only distinction now made between these two classes of students. They enter the University upon the same tests; the standard of admission is the same to all; they pursue their studies under the same professors; they mingle in classes; they do the same work and the examinations are alike and the value of the degrees obtained will be the same to every graduate. These changes are recognized by educators as placing all students upon a fair equality, adding dignity to the work, placing the degree granted beyond reasonable criticism. In this movement, therefore, we are serving the best interests both of the University and the student, giving the University a reputation for excellent work.



and giving the student a degree that will be of unquestioned value among educators.

5. A change has been made in the hours of classroom work. By the action of the Board of Trustees no work will be done by any professor, a member of the faculty, after six-thirty o'clock in the afternoon. Those taking the twelve hours' course will attend classes between the hours of four and six-thirty on six days of the week. From this time forward all students will be working in an institution doing day work and the diplomas they receive will be of the dignity and value given to such work.

6. The body is more than the "casket of the soul"; it is its agent through which it manifests itself and by which it does its work. No cause can prosper well that depends upon a weak and inefficient agent. The body should receive attention as well as the mind. It should be cultured as well as the intellectual part of man and these processes, in the very nature of our life, must go on together. We may not attend two schools, one for the benefit of the mind and the other for the benefit of the body, at different times in life, with quite as good results as we can attain by carrying on both lines of culture at the same time. While the student is engaged during the greater number of hours during the day in intellectual work, he must also devote some time to physical culture. This may be done in various ways and I commend to every student the careful division of his time so as to give a reasonable time to recreation, that the body may be made a sound, strong, and efficient agent of the soul.

We desire to develop, as far as possible, the athletic spirit, and I commend to your consideration and support the organizations which have these objects under their care. I believe in games, not only as a means of developing the physical nature, but also as a means of

developing character. A man can not play a good game of foot-ball without having a strong will under perfect control, a quick and active mind under perfect discipline, and a spirit that "suffers long and is kind". This may be said also of other games, and in this connection I also wish to commend the organization of boating clubs. We have, flowing past our city, a beautiful river upon which this kind of recreation can be carried on with the greatest success. Games are one way of manifesting spirit, and especially a college spirit. Without college life and a unity of interests there can be no great college. We seek, therefore, to encourage this feature of student life. Let it all be done according to the best methods, under the best instructors, in hearty submission to the best discipline, and upon honor. Better lose with honor than win a game by questionable methods. Let the students of Columbian enter the lists with those colleges and universities who teach that honor and character are greater than temporary success, and that enduring success comes to those who work patiently, keep the rules, and a clear conscience.

7. It remains now for me to say a few words regarding your privileges as students. However great the facilities may be which are offered to a student, everything depends ultimately upon himself. We bring to your aid the best facilities within our power, the help of excellent professors and instructors; whether you will avail yourselves of these advantages and accomplish as much as is possible in the time you are with us, depends upon your own efforts. The author already quoted said, "Learning is acquaintance with what others have felt, thought, and done; knowledge is the result of what we ourselves have felt, thought, and done". Education is not simply the acquirement of learning; it is that culture of the mind which renders it quick and accurate in action.



It should give ability to take up entirely new subjects and investigate and analyze them and to arrive at correct conclusions. Facts are things to be gathered; truth is to be comprehended but the power to do this depends, in the individual case, upon the state and condition and training of the mind. The student seeking to perfect himself in music is not acquiring facts, is not playing the music that he will use very much in life; he is rather making the ear and the eye quick and accurate, the hand flexible, and with these acquirements, he will take up any music and perform with credit. It matters very little how many scales he may have run, what exercises he may have practised, what pieces of music he may have tried to commit to memory; the value at last lies in the facility of the hand, the accuracy of the ear and the eye, and the music in the soul. So it is in all departments of education. It is not what we learn or forget, but it is the facility, accuracy, tension of the mental faculties to do things. The scope of possible endeavor is dependent upon the power to gather facts, to analyze a subject, and arrive at correct conclusions. This is after all the greatest single object in the undergraduate life. In order to accomplish this great result there must be discipline, a constant submission to those practices and tests of mental power which bring growth of the intellectual man. You need not feel humiliated by the manifestations of ignorance. It is the discovery of these points of weakness that should enable the teacher to correct and strengthen and develop the student. The discipline and the work required is not always, I am aware, attractive, but it is the only road to success. We admire the splendid heroism and the brave deeds of the gallant regiment that won the victory. How patiently and firm they waited under fire for the order, how perfectly and efficiently they held and handled their weapons, how quick-

ly and correctly they responded to the order. In what regular order they moved towards the guns; with what dash and spirit they rushed upon the enemy; how firmly they withstood assault. That was no accident or chance or fate. It was the result of long and weary days of drill; the handling of weapons on a common field; a marching and counter-marching, without other purpose than the acquirement of knowledge of weapons and their perfect use, familiarity with orders, and a growing confidence in orderly and masterly work. They drilled well, submitted to tiresome and galling discipline and found at last that it made them glorious, their work immortal, and that it saved a nation.

The law of life is the same in all departments and fields of activity. Nothing but opportunities come by apparent chance. To avail ourselves of opportunities when they come, to do well the work of life requires a knowledge of our own, of truth and laws and the results of human and physical action, the ability to use every faculty to its utmost and at its best; to be patient and wait to act with well-directed enthusiasm; to withstand assault and defend truth. In short, to make a good and well-drilled intellectual soldier is one of the objects of education.

I do not mean to underestimate the value of knowledge acquired during student life. Much of it is of great importance and value. But its value depends upon the accuracy with which it is grasped. Truth should be the aim of every student. To arrive at accurate knowledge of things should be the constant aim of every student. Theories may be attractive and it may be easier to accept the conclusions of others, but the true student will always seek to know the truth, and in seeking will desire to know the reasons by which he may defend it. In this work he can not overestimate the value of

operation and the freest consultation with each other and with the instructor. We do not understand a matter or have a real opinion upon a subject until we have expressed it in writing or in words. If you will be accurate, therefore, in your knowledge, discuss the subjects studied, express yourself both orally and in writing about them, not once but many times, and if you compare your reasoning and your conclusions from time to time you will see a steady improvement and a nearer and nearer approach to the truth. Knowledge is power as money and things are riches, but as the quality of the coin and the condition of the thing determine the real value of the riches possessed, so accuracy, the absolute truthfulness of the facts which constitute your knowledge, will determine your real power in life. No man can do a very sound business with false or debased coin; neither can a man become very powerful or influential in life whose knowledge is unstable or unsound. I commend, therefore, to you in the student years that are before you, submission to mental discipline, a constant testing of the facts, and that association which will give free and constant play to your mental faculties.

8. Do not neglect the ethical and spiritual life. The true artist will have

a perfect knowledge of colors and forms, a true hand and eye, but after all there will be something he will put into the picture that is not color or line; we can not define it in accurate terms, we call it by various words—feeling, soul, expression, character, and this indefinable part is what will make the picture and the artist immortal. You can not afford to go into life simply with knowledge and intellectual power. The work of such a man may have what may be called "mechanical accuracy", but it will lack the glow and beauty which the world loves and believes to be divine. Culture the soul as well as the mind. Make the thoughts and the imagination pure, the impulses and ideals high and noble; build character upon sure foundation and with the best materials. Keep close to God and nature, and thus give tone and feeling and the soul's expression to all your life and years of work.

With all these plans and aims we begin a new year, one that I trust will be important and memorable in the history of the University.

Trustees, members of the faculty, students, and friends, we are one body, working to a common end and that to make this University not a competitor, but the equal sister of the best and greatest universities in America.



## REPORT OF THE PRESIDENT OF THE BOARD OF GOVERNORS OF THE UNIVERSITY HOSPITAL.

To the Board of Governors of the Columbian University Hospital.

GENTLEMEN: As stated in the last annual report (November, 1902), the Hospital was closed to the admission of patients on July 19 of that year, owing to changes and additions then going on in the Hospital building. From unavoidable delay with the interior finishing, furnishing, and equipment of the new buildings, the institution was not again open for the reception of patients until February 28, 1903.

On that day it was formally reopened with appropriate dedicatory ceremonies, participated in by President Needham, Rev. S. H. Greene, D. D.; Rev. Teunis S. Hamlin, D. D.; Commissioner Macfarland, Dr. A. F. A. King, and others, followed by a reception and collation during the afternoon, when the new buildings were inspected by several thousand visitors and friends.

Patients were admitted on the succeeding day (March 1), and the total number of admissions from that date until the close of the Hospital year, November 30, 1903, comprising a period of eight months, as shown by the report of the Superintendent, was as follows: Medical cases, 189; surgical cases, 216; gynæcological cases, 54; obstetrical cases, 31—total, 490.

The surgical operations numbered 128.

The admissions to the dispensary service comprised several hundred cases, of which, however, the record is too imperfect for exact statement. This should be remedied in future by a more systematic method of registration.

*Finances.*—The report of the Treasurer shows the total receipts for the fiscal year ending August 31, 1903, to have

been \$21,793.36 and the total expenditures \$22,865.85; deficit, \$1,072.49.

It should be noted that the receipts from pay patients during the year include only the money received from March 1, 1903, when the hospital was reopened, until August 31, 1903, a period of six months. Furthermore, the large outlay of \$9,920.96 for equipment of the new building was an extraordinary expense that will not occur again, and likewise the amount of \$1,277.19 for medical and surgical supplies was probably more during this first year than it will ever be in future. With judicious and economic management, there is no reason why the hospital should not be self-supporting or even afford a credit balance to reduce the outlay expended in its erection.

Of the total receipts for the year the sum of \$3,450 was contributed by the Board of Lady Managers, \$1,600 of the amount having been given by Dr. R. L. Donaldson, Mrs. Stanley Matthews, Mrs. Heman D. Walbridge, Mrs. Southwick C. Briggs, Dr. and Mrs. H. C. Yarrov, Mrs. William E. Clark, Miss Mary V. Vranken, and Mrs. D. C. Phillips. Special donations to furnish memorial rooms, details of which appear in the Treasurer's report of the Board of Lady Managers.

The receipts also include a sum of \$4,690 contributed by the friends of the late Dr. W. W. Johnston to dedicate the two medical wards of the hospital as memorial to him.

A contribution was made by Mr. Wm. H. McKnew for the furnishing of a suite of rooms in memory of his husband, the late Wm. H. McKnew.

A contribution was likewise made



Mrs. Gardiner G. Hubbard for the furnishing of a suite of rooms in memory of her husband, the late Gardiner G. Hubbard.

The sum of \$1,000 was contributed by the Department of Medicine, this being its fifth annual contribution of a similar amount. The report of the Superintendent, Dr. H. C. Macatee, and of Miss Minnie Paxton, the Superintendent of Nurses (to both of whom we are indebted for faithful and diligent service), present details as to clinical instruction utilized by medical students, and the training and education of the nurses, which I need not here repeat, further than to say that the establishment of the Nurses' Home will leave additional rooms for pay-patients in the Hospital, by which it is hoped the annual revenue will be increased.

The dispensary service has not yet been as large as was desired, but it is hoped there will be improvement in this respect when the medical charity it designs to render shall have become more widely known among the suffering poor.

To the physicians on the Dispensary Staff, whose patient attendance has contributed to the establishment of this service, our thanks are justly due. To the Board of Lady Managers, whose continued devotion and loyalty to the welfare of the Hospital have contributed so largely to promote its interests, we tender our most sincere thanks. We beg also to acknowledge most gratefully the generous donations of the kind friends, previously mentioned, by whose liberality the memorial rooms were furnished. The work of the Assistant Resident Physicians, Drs. George M. Ruffin, Joseph D. Rogers, Francis H. Poole, Samuel Fry, Harry H. Donnally, Henry C. Coburn, and Carl V. Nyman (pharmacist), and of the externs, Messrs. James G. Fisher, Charles W. Hyde, Montafix W. Houghton, Llewellyn Powell, and Raymond A. Fisher, has been eminently satisfactory and commendable.

Respectfully submitted.

A. F. A. KING, M. D.,  
*President.*

## CHANGE IN THE CHARTER.

THE University was founded in 1821, and the provision of the original charter in reference to the qualifications of members of the Board of Trustees and officers of instruction was as follows:

*"And be it further enacted, That persons of every religious denomination shall be capable of being elected Trustees; nor shall any person, either as President, professor, tutor, or pupil, be refused admittance into said College, or denied any of the privileges, immunities, or advantages thereof, for or on account of his sentiments in matters of religion."*

This provision continued in force until 1898, when, upon the request of the Board of Trustees, an amendment was passed by Congress March 18, 1898, which reads:

*"Two-thirds of said Trustees, and also the President of the University, shall be members of regular Baptist churches; that is to say, members of churches of that denomination of Protestant Christians now usually known and recognized under the name of the regular Baptist denomination. Said Trustees so elected shall serve for the periods mentioned and until their successors are elected."*

After five years of experience it is apparent that the amendment of 1898 operates to the disadvantage of the University. It prevents the University from securing the support and the co-operation of prominent men interested in the development of educational institutions in Washington, and also prevents any general contribution of money to the support of the University. It was therefore determined by the Board of Trustees at its meeting held October 14, 1903, to ask Congress to change the charter, repealing the act of 1898 and restoring section 14 of the Original

Charter of 1821, thus returning to the position of the founders.

The similarity of the name *Columbia* with that of "*Columbia*," New York, has caused embarrassment and led to the belief that some modification of our name is desirable. *Columbia*, New York, being the older institution, it is proper that the change should be made by this university. No name has been discussed by the Board of Trustees, but Congress has been asked to give to the board the power to make such a change whenever a suitable name can be agreed upon.

A bill making the above changes in the charter and authorizing a new name was introduced in the Senate of the United States by Senator Gallinger on November 18, 1903. This bill was referred to the District Committee, and after receiving the indorsement of the Commissioners of the District of *Columbia*, it was favorably reported and was passed by the Senate December 18, 1903. The bill is as follows:

*"A BILL supplemental to the act of February ninth, eighteen hundred and twenty-one, incorporating the *Columbia* College in the District of *Columbia*, and the acts amendatory thereof.*

*"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the act to incorporate the *Columbia* College, in the District of *Columbia*, approved February ninth, eighteen hundred and twenty-one, and the amendatory act approved March eighteenth, eighteen hundred and ninety-eight, and the same are hereby, amended, repealing and striking out of the said charter the following words in lines twenty to twenty-five in section one of the said amendatory act of March eighteenth, eighteen hundred and ninety-eight, namely, 'Two-thirds of said trustees, and also the President of*



University, shall be members of regular Baptist churches; that is to say, members of churches of that denomination of Protestant Christians now usually known and recognized under the name of the regular Baptist denomination.'

"SEC. 2. That section thirteen of the original charter of February ninth, eighteen hundred and twenty-one, which provides 'That persons of every religious denomination shall be capable of being elected trustees; nor shall any person, either as president, professor, tutor, or pupil, be refused admittance into said college, or denied any of the privileges, immunities, or advantages thereof, for or on account of his sentiments in matters of religion,' be, and the same is hereby, reenacted and shall be hereafter in full force as a part of said charter.

"SEC. 3. That power is hereby given to the board of trustees of said university to change the name of said university at any regular meeting by a vote of not less than two-thirds of the total number of members of the board, as prescribed by the charter, subject to the approval of the Secretary of the Interior and the Commissioner of Education. That upon said action being taken a certificate,

under the seal of the university, stating the name adopted and the date when the name shall go into effect not less than thirty days nor more than six months from the date of its adoption, together with the fact that said name has been adopted, as herein prescribed, shall be filed in the office of the recorder of deeds of the District of Columbia and thereupon, upon the date specified for the name to go into effect, the university shall be known and designated by the name adopted, and by said new name the said university shall be vested with and convey its real estate, hold, control, and administer endowments and gifts of money and property heretofore and hereafter made for the maintenance of its educational work and do and perform all acts which it now has the power to do under its said charter. Such change of name shall not in any other way change, affect, or modify in any degree the rights, privileges, obligations, and powers of the said university under the charter of February ninth, eighteen hundred and twenty-one, and the amendatory Acts thereto.

"SEC. 4. That all acts and parts of acts inconsistent with this act are hereby repealed."



## LIBRARY SCIENCE COURSES

**I**NSTRUCTION in this subject will be given in the Department of Arts and Sciences beginning in January, 1904. Courses have been arranged as follows:

DOCTOR SPOFFORD

*Lectures on Library Science, First Course:*

1. Introduction—Objects of a Course of Library Science.
2. The Art of Printing.
- 3-5. The History of Printing, by countries (3 lectures).
6. The Genesis of Libraries.
- 7-10. The History of Libraries, by nations and states (4 lectures).
11. The Uses of Libraries.
12. The Choice of Books.
13. Methods of Reading.
14. Memory and its So-called Aids.
15. Helps to Readers.
16. Book-buying for Libraries.
17. The Preservation of Books, restoring, &c.
- 18-19. Bookbinding (2 lectures).
20. Periodical Literature.
21. The Literature of Pamphlets.
- 22-27. Qualifications of Librarians (6 lectures).
28. Library Buildings and Furnishings.
29. Library Regulations.
30. Library Trustees or Boards of Directors.
31. Libraries and the Public Press.

PROFESSOR CUTTER.  
MISS STEPHENS.

*Cataloging:*

One lecture per week; practice at hours to be appointed. These lectures will cover the elementary cataloging methods used in making dictionary catalogs, familiarizing the students with the choice of subject headings, the equipment and cost of a card catalog, including the distribution of cards from a central bureau and the printing and issue

of finding lists and library accession lists.

*Classification and Shelf Department Work:*

One lecture a week for two months; practice at hours to be appointed. The Decimal system and the Expansive system will be discussed and compared, and practice given in classifying books by both systems. Instruction will be given in the preparation of a shelf list, both on cards and sheets, and in the preparation of books for the shelves.

*Library Administration:*

One lecture a week for one month; with practice. This will include loan systems, including inter-library loans; borrowers' registers, and statistics of readers; accounts, stock-taking, care of supplies; library legislation, library associations, clubs, commissions, library schools, and traveling libraries.

*Accession and Order Department Work:*

One lecture a week for one month; with practice. This will include the various details in the acquisition of books, book prices, reading second-hand catalogs, the organization of the book trade, book trade publications; the preparation of an accession book and of statistics of accession.

Throughout the course, which is necessarily brief, especial stress will be laid on the practical part of the work, putting into practice the principles taught in the lectures.

SPECIAL LIBRARY FEES FOR THE CURRENT SESSION.

Students entering the University for the Library Science courses in January 1904, will be charged for the remaining five months of the academic year only one-half of the annual fee.

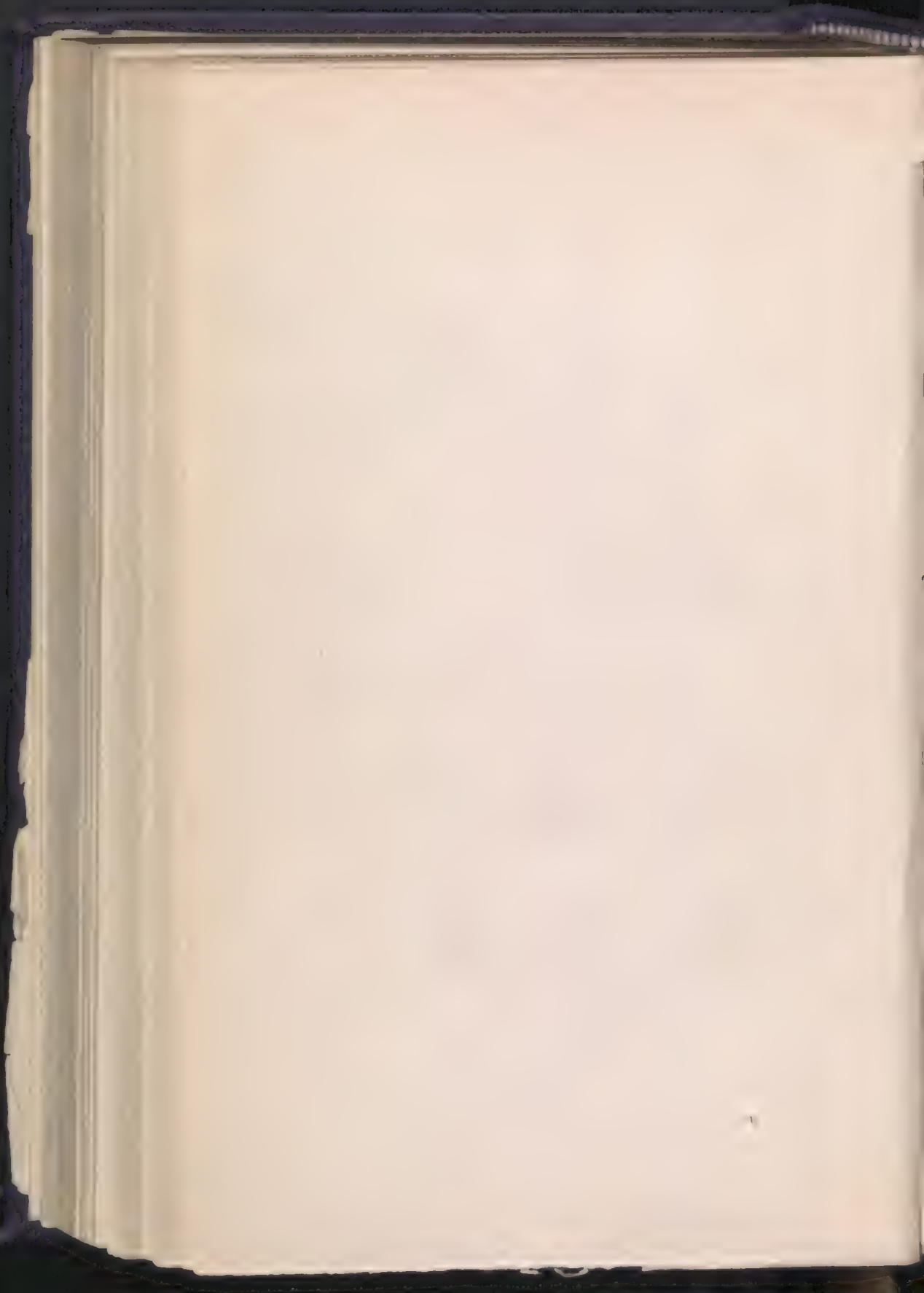
GRADUATE COURSES IN LIBRARY  
SCIENCE.

The University contemplates the establishment of a department of graduate study in Bibliography and Library Science, to be in charge of a head professor who has had large experience in libraries of the highest order. This department will be for students fitting themselves for service in libraries affording special facilities and equipment

for reference and research. It is expected that this higher work in library economy will be offered at the beginning of the next academic year. The undergraduate courses will be conducted by the professor in charge of the graduate work, assisted by an adequate corps of instructors.

For further information, address

CHANNING RUDD, *Registrar,*  
*Columbia University,*  
*Washington, D. C.*





SUGGESTIONS  
FOR A  
SCHOOL OF BIBLIOLOGY  
AT  
COLUMBIAN UNIVERSITY

BY  
WILLIAM PARKER CUTTER  
PROFESSOR OF LIBRARY SCIENCE  
COLUMBIAN UNIVERSITY

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WASHINGTON  
PRINTED AS MANUSCRIPT  
1904



## SUGGESTIONS FOR A SCHOOL OF BIBLIOLOGY

AT

### COLUMBIAN UNIVERSITY.

WASHINGTON, D. C., February 20, 1904.

*To the President and Board of Trustees.*

GENTLEMEN: There are many library schools in the United States. Among them are the following:

State Library School . . . . .	Albany, N. Y.
Drexel Institute Library School . . . . .	Philadelphia
Pratt Institute Library School . . . . .	Brooklyn
Library Department, Illinois State University .	Champaign, Ill.
Simmons College Library School . . . . .	Boston, Mass.
Library School, Western Reserve University .	Cleveland, O.

(not yet open)

The New York State Library School is the parent of those at Brooklyn, Philadelphia, and Champaign, and its methods are taught in them.

In considering the establishment of a school in Washington, one must discover satisfactory answers to the following questions:

- (1) Do the existing library schools fill the demand for trained librarians and assistants? If not, in what direction do they fall short?
- (2) What facilities has Washington, not found in other cities?
- (3) What equipment is needed? What instructors? How large a library?
- (4) Of what should the course consist?

The following are answers, according to my ideas:

(1) They do not. Subordinate library assistants are supplied in sufficient number—cataloguers, children's librarians, employees of the circulating department, and the like. The needs of the ordinary circulating library are easily satisfied, as that form of library has largely developed into a machine, for which systems have been devised and in whose work training can be easily given. The reference libraries and the college libraries, however, have work of so much higher grade



that the library schools, which train *machine* librarians, fail to furnish capable assistants and librarians for such libraries. To use an analogy for illustration, the school-trained library assistant or librarian of the day is doing work little higher in grade than that of a grammar school; the high school, college, and university grade of librarian is not coming from the library school. The reason is not difficult to discover. The Albany library school plan is to develop an expert knowledge of methods, not of books. The development of methods has so monopolized the time of the library school faculty that they have lost sight of the greater end of library work—the education of the people. They pay little attention to book selection, reference work, and the like, and much to cataloging and classification. The instruction is almost entirely in the hands of persons who have little or no experience in this higher work. This is true of all the existing library schools.

(2) First and foremost, the largest and best collection on the American continent, located in the finest building, and organized as is no other library in the world, a library to which is added every year more books than are contained in the majority of libraries, and employing experts in every department of literature. Every facility will be offered by the Library of Congress to students in the school when organized, and the graduates, who will have worked largely at the Library, will necessarily receive consideration in the appointment of assistants. Second, the wonderful special libraries of the Government, many of them the finest special collections in the world. There are libraries of mathematics, medicine, law, geology, botany, military and naval science, patents, education, meteorology, which have few, if any, equals. No other city has such facilities. The city has, through the munificence of our Library Saint, Mr. Carnegie, a splendid circulating library, with provision for branches, furnishing interesting problems connected with this form of popular education.

A librarian must not only be well educated, but must keep in touch with the history of the day. The location of a school in Washington affords an opportunity to see that history made, and to develop the alertness of the student in furnishing information to those who are making it.

(3) With the large libraries mentioned, which are available for practice, a small reference collection and a special collection upon library methods and history, in all not over ten

thousand volumes and costing not over twenty thousand dollars, will be necessary for the needs of the University in general and the school in particular.

A building to contain this library, a branch of the District of Columbia public library, and the necessary work-rooms, class-rooms, and office-rooms for the school should be erected. It should be simple in architecture and the interior planned by the director of the library school.

There should be provision made for such an endowment as would insure adequate salaries for two persons in the beginning, the director of the school and a teacher of library methods—cataloging, classification, and the keeping of library records in general. Additional provisions should be made for occasional lectures and for the contingent expenses of the school.

There should be a librarian for the library of the University mentioned above, and assistants to do the work in the branch mentioned. The work could be largely left to the students in the school and to the employees in the Carnegie Library. But a further provision should be made to cover these items, as the students should be expected to do only such work in these libraries as would make them familiar with methods. Their time should be free for their study. Nor should the school faculty be expected to do the routine work in these libraries.

(4) The school should attempt two distinct lines of instruction: the first, undergraduate training in library methods, corresponding to the highest grade instruction in the existing library schools; the second, graduate, bibliology, the knowledge, use and description of books, and library management.

The full course in the graduate work would cover two years, and be for college graduates only. Graduates of recognized library schools, or those having had one year's training in a library school, should be admitted to the course, provided they have sufficient basal education to justify their admission. Under no circumstances should any student be admitted to graduate work whose general education is not sufficient. Such persons will only interfere with those for whom the school is designed, and bring it into ultimate disrepute. Those applicants who are thus deficient should be required to spend sufficient time in the School of Arts and Sciences of the University to bring them up to the standard. The school of bibliology should at once take a stand above the others, which are largely manual



training schools. It should teach engineering, not shop work, except as incident to its training in engineering.

The undergraduate work should correspond to the other courses in the University, and those students taking the work who are not already proficient in the English language, in history, political science, French, German, and the ordinary subjects of a college course, should be expected to combine these with the training in library methods.

The immediate instruction in library methods should cover the equivalent of twenty hours a week for one year, but be so arranged as to afford students the opportunity to spend ten hours a week for two years, in order to allow of other studies. The instruction should cover classification, cataloging, loan systems, order systems, indexing, keeping of library statistics, binding records, shelf-listing, accessioning, office methods, proof-reading, and elementary reference-work ; in general, a complete knowledge of the more mechanical work, such as is now covered by the course in the Pratt Institute, the Drexel Institute, and the Illinois State Library School.

The graduate work should be designed for those who have already the training outlined above. It should develop largely along the seminar plan, and should cover

#### LIBRARY ADMINISTRATION.

(a) Library architecture, ventilation, heating, lighting, library furniture, book stacks and carriers. The mechanical equipment.

(b) Organization of libraries ; sources of income, bequests, appropriations ; organization of city library committees ; boards of trustees, their organization, methods of conducting business, duties and obligations ; investment of library funds, and apportionment of the same ; appointments, salaries, relations of trustees to staff.

(c) Librarian, qualifications, relation to trustees, organization of staff, rules for staff, vacations, sick leave, staff lunch-rooms and dressing-rooms, training classes.

(d) Readers, library rules, access to books, library hours, delivery at homes, fines and penalties, children's rooms and work ; branches and delivery stations, bulletin-boards, disinfection of books.

(e) Library publications ; bulletins, finding lists, newspaper lists, library advertising, relations to the press, library printing and binding.



(f) Library associations and clubs, library schools and training classes.

The above, with such related subjects as present themselves, should occupy a course of lectures for one year, and be supplemented by a course of reading and study of library reports, and the Library Journal, and by practical work.

#### BIBLIOPOESY.

(The making of books.)

(a) Palæography, Assyrian, Babylonian, Chaldean, and Egyptian inscriptions, papyrus and palm books, manuscripts, illumination, chirography, abbreviations, and determination of dates of manuscripts.

(b) The making of books, origin of printing, block books, Chinese printing, the Gutenberg controversy, styles of type, history of early printing, incunabula, their description, collation, rarity, famous presses, early cartography, early illustration, genesis of the title page, register, folio numbering, paging, division into books and chapters, capitals.

(c) Printing, type, composition, imposition of forms, press work, folding and gathering.

(d) Forwarding, stitching, guarding, mounting, inlaying, loose and tight back, end papers, trimming, rounding, end boards, head-band.

(e) Finishing, materials, tooling in blind and gold, case work, repairing, fine binding.

(f) Publishing, trade methods, advertising, trade bibliography, bookselling, jobbers, retailing, net-price question, trade organizations and legislation, copyright, international copyright.

#### BIBLIOGRAPHY.

(The description of books.)

(a) Paper, the various varieties, methods of manufacture, hand and machine made, vellum, Japanese, Chinese, and India paper.

(b) Title pages, half titles, blank leaves, wrong numbering, missing leaves, indexes, accurate collation.

(c) Size, by measurement and by fold, size of sheets, large paper editions, laid and wove paper, identification of signatures.

(d) Editions, first edition, variations, special editions, limited editions.

(e) Imprint, colophon, anagrammatic and hidden imprints, identification of press, secret and anonymous presses, false imprints.

(f) Binding, identification of material, special bindings and work of special binders, binders' labels and legends, doublés, gauffered and painted edges.

(g) Illustration, extra-illustration, state of plates, inlaying, inserted matter.

#### BIBLIOCHRESIS.

(The use of books.)

(a) Catalogs, systematic and alphabetic, analytical references and entries. Trade lists, library lists, booksellers' lists.

(b) Readers' helps, bibliographies, special and national, and general indexes.

(c) Standard reference works; encyclopædias, biographical dictionaries, dictionaries of language, other special dictionaries, atlases, gazetteers, directories, almanacs.

(d) Reference books for special subjects; each subject to be taken up in order. The standard reference books will be shown and practice in their use given.

(e) Standard literature; each subject to be taken up serially, the best books examined, some of them read, and reviews written.

(f) Methods of reading, note-taking, foot-notes, references, "skimming," reading by contents and head-lines.

The subjects bibliopoesy, bibliography and bibliochresis should extend over two years. The lectures should be given only as introductory to practice. The time should be almost entirely spent in reading and practice in the University library, the Library of Congress, and the other libraries above mentioned.

Each student should be required to prepare during the second year a thesis on some library topic, with accompanying annotated bibliography. During the course frequent bibliographies must be compiled.

The seminar plan, as I have already indicated, should be followed and students given the fullest measure of practical work. The graduate course should lead to a doctor's degree.



THE COLUMBIAN UNIVERSITY  
WASHINGTON, D. C.

### TEACHERS' COURSES FOR 1903-1904

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The following Free Courses of instruction are offered to teachers in the public schools of Washington:

Ten teachers will be admitted to each of the three courses offered on presentation of admission tickets. On the completion of the course each of the teachers is expected to submit note books on the course for examination, and to present an essay on a prescribed topic within the course. If these prove satisfactory a certificate will be conferred by the University.

Applications for admission tickets should be made to Mr. A. T. Stuart, Superintendent of Schools.



# ANATOMY, PHYSIOLOGY, AND HYGIENE

TOPIC.	LECTURER.	DATE.	TIME.	PLACE.
Outline Anatomy of the Human Skeleton.....	Professor Shute.....	Jan. 6	4.30	Hall I.
Outline Anatomy of the Viscera. . . . .	Professor Shute.....	Jan. 13	4.30	Hall I.
Physiology of Individual Cells.....	Professor Carr.....	Jan. 18	4.30	Hall II.
Physiology of the Nervous System.....	Professor Carr.....	Jan. 25	4.30	Hall II.
Physiology of the Alimentary System.....	Professor Carr.....	Feb. 1	4.30	Hall II.
Special Anatomy of the Brain.....	Professor Shute.....	Feb. 10	4.30	Hall I.
Toxines and Antitoxines.....	Dean De Schweinitz.....	Feb. 17	4.30	Hall II.
Osmosis.....	Professor Munroe.....	Feb. 27	4.30	Chemical Lecture Hall.
Foods and Feeding.....	Professor Wiley.....	Mar. 2	4.30	Bureau of Chemistry, U. S. Dept. of Agriculture.
Nutrition.....	Professor Wiley.....	Mar. 9	4.30	Hall I.
Infection, Disinfection, and Immunity.....	General Sternberg.....	Mar. 17	7.30	Hall I.
Infection, Disinfection, and Immunity.....	General Sternberg.....	Mar. 24	7.30	Hall I.

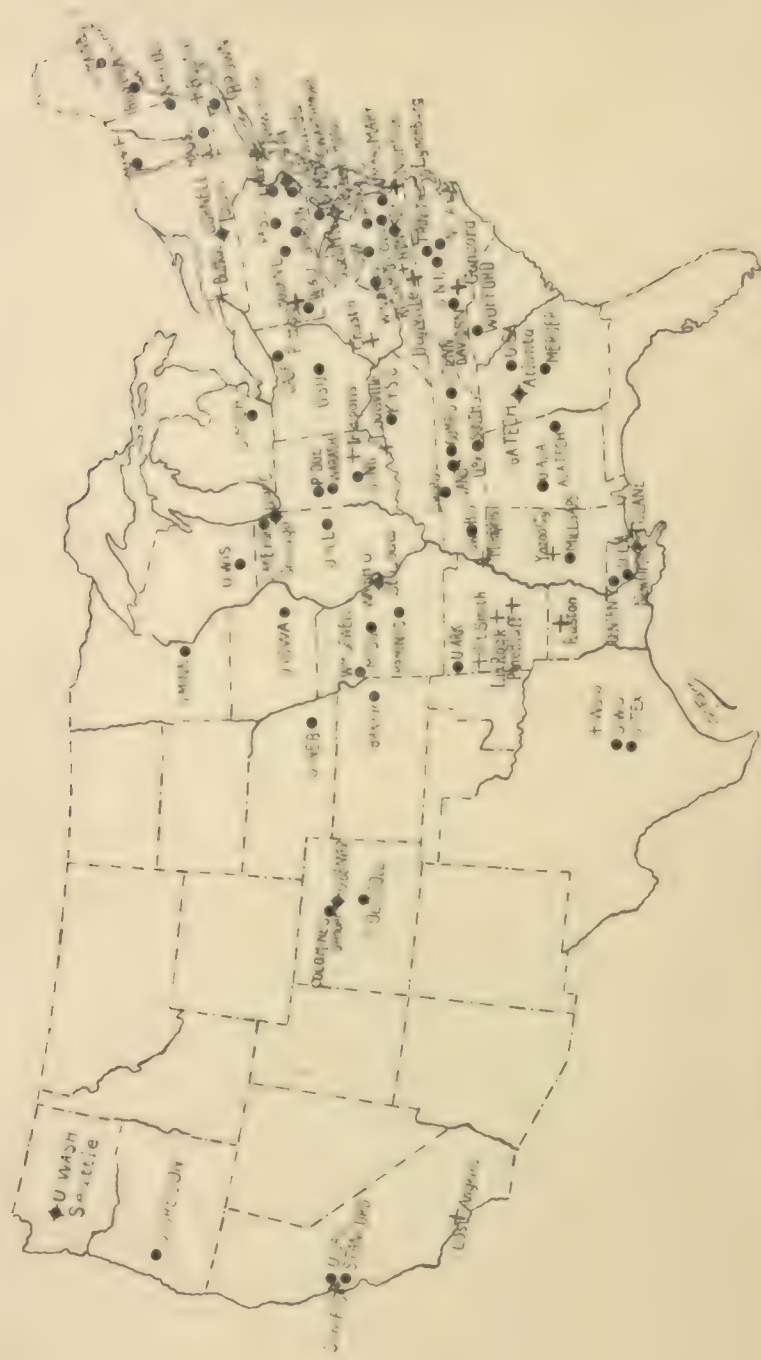
# CIVICS

TOPIC.	LECTURER.	DATE.	TIME.	PLACE.
History of Diplomacy and Treaties of the United States	Professor Foster.....	Jan. 6	5.30	Hall "B."
Constitutional Law of the United States.....	Justice Harlan.....	Jan. 8	5.30	University Hall.
Comparative Constitutional Law.....	Dean Tucker.....	Jan. 13	4.30	Hall "A."
International Public Law.....	Justice Brewer.....	Jan. 19	5.30	Hall "B."
English Common Law.....	Professor Taylor.....	Jan. 25	4.30	University Hall.
Comparative Politics and Political Geography.....	Professor Swisher.....	Feb. 11	5.30	Hall "B."
Comparative Politics and Political Geography.....	Professor Swisher.....	Feb. 12	5.30	Hall "B."
Interstate and Foreign Commerce.....	Professor Austin.....	Feb. 15	5.30	Hall "C."
International Trade and Commercial Geography.....	Professor Crowell.....	Feb. 23	4.30	Hall "B."
Transportation and Interstate Commerce Law.....	President Needham.....	Mar. 2	5.30	Hall "A."
The Census of Manufactures in the United States.....	Director North.....	Mar. 8	4.30	Hall "B."
The Development of Manufactures in the United States.....	Director North.....	Mar. 15	4.30	Hall "B."

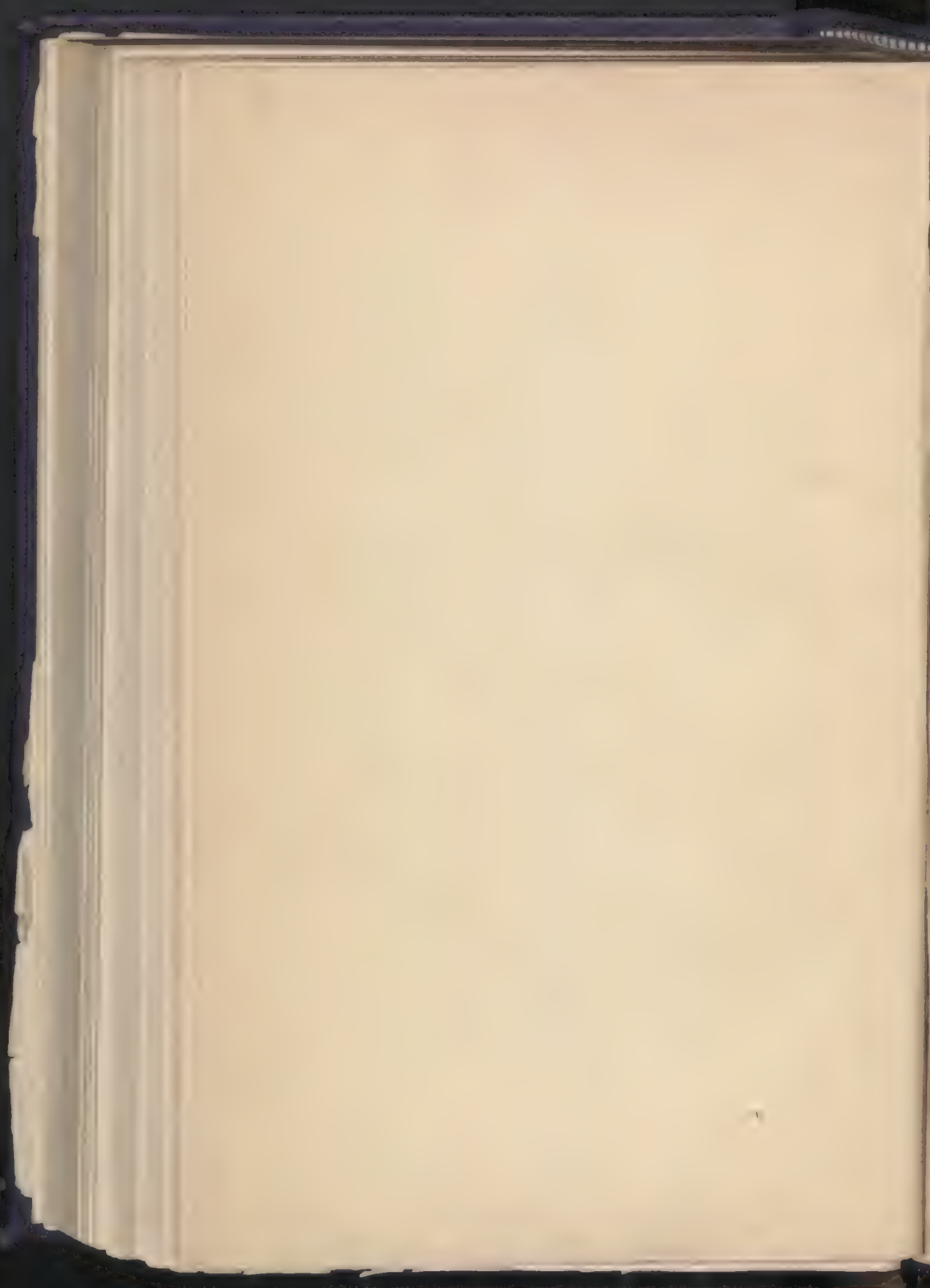
# EVOLUTION OF THE DRAMA

Topic.	Lecturer.	Date.	Time.	Place.
Greek Tragedy.....	Professor Carroll.....	Mar. 3	4.30	West Hall.
Greek Comedy.....	Professor Carroll.....	Mar. 10	4.30	West Hall.
The Roman Drama.....	Professor Pease.....	Mar. 17	4.30	West Hall.
The Drama in France.....	Professor Henning.....	Mar. 23	4.30	West Hall.
The Drama in France (continued).....	Professor Henning.....	Mar. 30	4.30	West Hall.
The Drama in Germany.....	Professor Schoenfeld.....	Apr. 7	4.30	West Hall.
Ibsen and Bjornsen.....	Professor Schoenfeld.....	Apr. 14	4.30	West Hall.
Jewish Dramatic Literature.....	Doctor Adler.....	Apr. 21	4.30	West Hall.
Rise of the English Drama.....	Professor Wilbur.....	Apr. 28	4.30	West Hall.
The Shakespearean Drama.....	Mr. McElroy.....	May 5	4.30	West Hall.
The Shakespearean Drama.....	Mr. McElroy.....	May 12	4.30	West Hall.
The Place of Music in the Development of the Drama.....	Mr. King.....	May 19	4.30	West Hall.





KAPPA SIGMA CHAPTERS, 1904



The  
George Washington University

SIXTH ANNUAL REPORT

OF THE

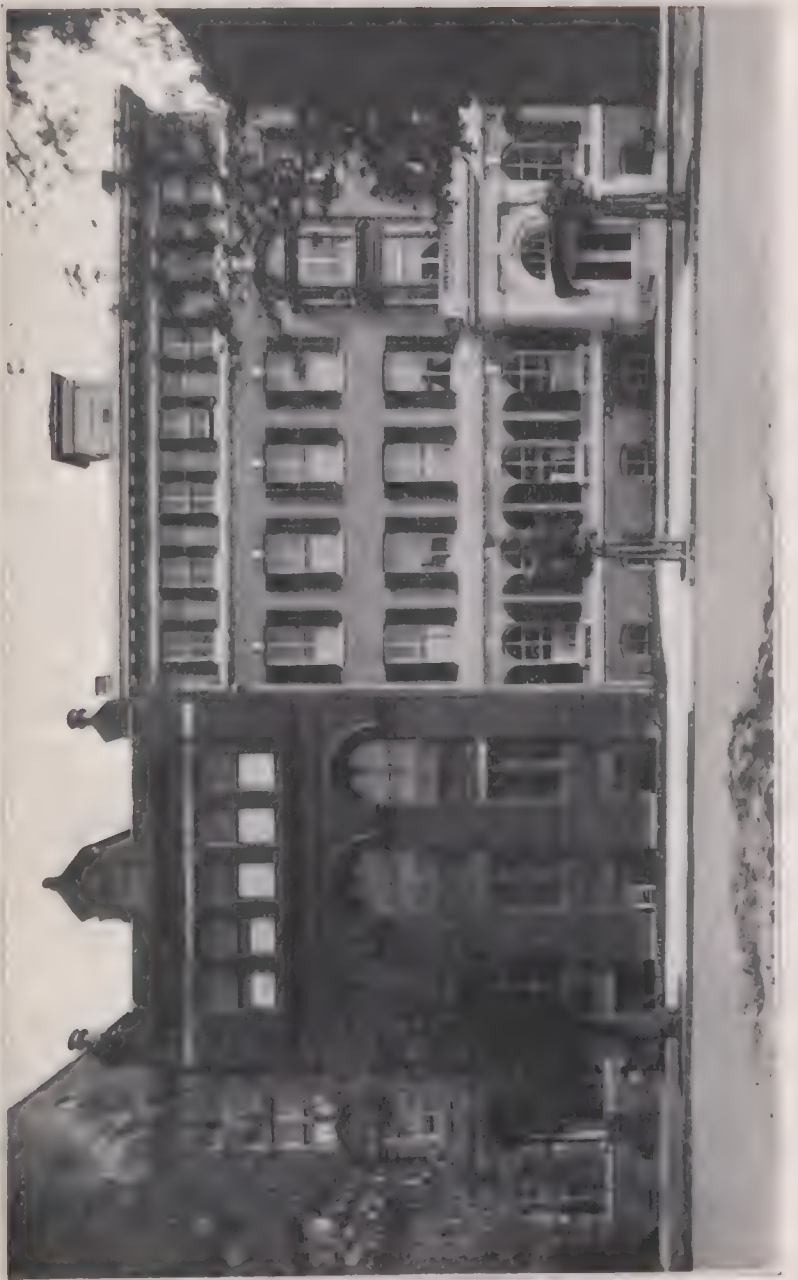
UNIVERSITY HOSPITAL

1904



Published by the University at Washington, D. C.  
June, 1905





THE GEORGE WASHINGTON UNIVERSITY HOSPITAL

By GARDNER

JUN 9 1914

THE  
GEORGE WASHINGTON UNIVERSITY  
SIXTH ANNUAL REPORT  
OF THE  
UNIVERSITY HOSPITAL

NOVEMBER 1, 1903, TO DECEMBER 31, 1904



PUBLISHED BY THE UNIVERSITY AT WASHINGTON, D. C., JUNE, 1905

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L. H. TAYLOR, M.D.

Superintendent of Nurses.  
Miss MARY BILLE STRUBLE.

Housekeeper.  
Miss KATE M. DUNLOP.

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 Charles W. Richardson, M.D.....Visiting Laryngologist.  
 J. Wesley Bovée, M.D.....Visiting Gynecologist.  
 James Carroll, M.D.....Visiting Pathologist.  
 H. H. Donnally, M.D.....Assistant Pathologist.

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 Charles W. Hyde, M.D.....Intern.  
 J. Lawn Thompson, M.D.....Intern.  
 Llewellyn Powell, M.D.....Intern.  
 H. E. Baldwin, Medical Student.....Extern.  
 A. H. Robnett, Medical Student.....Extern.  
 R. A. Hooe, Jr., Medical Student.....Extern.  
 E. T. M. Franklin, Medical Student.....Extern.  
 A. L. Hunt, Medical Student.....Extern.

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R. S. Beale, M.D.	Assistant.
T. S. D. Grasty, M.D.	Assistant.
E. L. Mason, M.D.	Assistant.

## Medical Dispensary.

B. L. Hardin, M.D.	Physician.
E. P. Copeland, M.D.	Assistant.
W. A. Frankland, M.D.	Assistant.
S. H. Greene, Jr., M.D.	Assistant.
H. C. Macatee, M.D.	Assistant.
George M. Ruffin, M.D.	Assistant.
Thomas Dowling, M.D.	Assistant.

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G. Brown Miller, M.D.	Assistant.
A. B. Hooe, M.D.	Assistant.
V. B. Jackson, M.D.	Assistant.
D. W. Prentiss, M.D.	Assistant.

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E. G. Seibert, M.D.	Assistant.
O. A. M. McKimmie, M.D.	Assistant.

## Skin Disease Dispensary.

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## Genito-Urinary Dispensary.

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Henry R. Elliott, M.D.	Assistant.

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E. G. Seibert, M.D.	Assistant.



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# REPORT OF THE SUPERINTENDENT OF THE GEORGE WASHINGTON UNIVERSITY HOSPITAL.

WASHINGTON, D. C., June 1, 1905.

*To the President and Board of Trustees.*

GENTLEMEN : I have the honor to submit this the Sixth Annual Report of the University Hospital. An unavoidable delay has occurred in the rendition of this report. The undersigned assumed charge of the Hospital July 1, 1904, Dr. H. C. Macatee, formerly Superintendent, having resigned. At the same time Dr. L. H. Taylor entered on his duties as Resident Physician, a new position. Miss Minnie Paxton, Superintendent of Nurses, resigned on June 30, 1904, and Miss Mary Belle Struble was appointed to the vacancy.

In accordance with a recommendation of the Faculty of Medicine made in December, 1904, the annual reports of the Hospital are, beginning with this report, to coincide with the calendar year.

The Fifth Annual Report brought the work of the Hospital to October 31, 1903. The present report begins with November 1, 1903, and ends with December 31, 1904—fourteen months.

During this period 1,024 patients were admitted ; 560 were pay patients occupying private rooms, and 464 were charity patients treated in the free wards ; 393 surgical operations were performed ; in the out-patient free-dispensary service 2,054 medical and surgical treatments were given. An orthopedic gymnasium has been established in a modest way in connection with the surgical dispensary. This is primarily for the correction, by appropriately directed exercise, of the spinal and other deformities incident to childhood. A tabulated statement of the medical and surgical work appears in the report of the Resident Physician. The Clinical Laboratory made, from July 6, 1904, the date since which systematic records are kept, 1,903 examinations of sputum, blood, urine, etc., of patients in the Hospital. The report of the pathologist is appended. The School for Nurses has entered on its second year, and the method of work and requirements for admission will be found in the report of the principal of the school, appearing elsewhere in this report. There appears a growing general tendency to increase the theoretical instruction given the trained nurse—to demand both higher preliminary and professional education. This school will endeavor to be among the foremost in forwarding this tendency.

Through the generous and kindly offices of the Board of Lady Managers the Nurses' Home has been made much more comfortable and pleasant. A general directory for graduate trained nurses has been established in connection with the Hospital. The object of the directory is to afford a means to the physician and to the patient of securing with the least loss of time the services of competent and reliable trained nurses. Registra-

tion is open to graduates of all reputable training schools. The directory is under the supervision of a committee of the Faculty of Medicine. The rules appear elsewhere in this report.

The Hospital is primarily maintained as a part of the educational establishment of the University to afford facilities for teaching students of medicine disease as it is seen and recognized at the bedside and in the operating room. It is gratifying to report that these facilities have been utilized to the fullest extent. Amphitheater clinics have been given weekly, and sometimes oftener. Small sections of students have been conducted daily through the wards and the cases therein demonstrated and commented on by members of the Visiting Staff and the Resident Physician. Cases have been assigned to students to examine and report upon. Every effort has been made to give thorough instruction in the recognition and treatment of disease as actually exhibited in the sick person. Such instruction is a great gain to the student shortly to go out into the community. Moreover, it is of more than ordinary advantage to the patients in the Hospital wards themselves. The stimulus that comes from teaching and contact with students insures to these patients professional service of the highest order. It is no exaggeration to state that the charity patients of a hospital connected with a medical school receive better professional care and attention than is commanded by any other class of patients. This is a fact that is becoming more generally recognized, and some of the progressive independent hospitals of the Eastern cities are, for this reason, seeking closer association with medical schools.

The hope was expressed in a previous report that with the addition of more private rooms the expenses of the Hospital would be met by the revenues derived from private patients. It is with regret that I am compelled to state that this hope has not been realized. An examination of the receipts of the sixteen months from August, 1903, to December, 1904, shows that the average monthly income of the Hospital from pay patients is, in round numbers, \$2,400. For the same period the average monthly expenses, excluding the rent of the Nurses' Home and the heating, was, in round numbers, \$2,600. Adding to this the rent of the Nurses' Home and the estimated cost of heating, the heating being done by the same plant that heats the Medical School building, this deficit is increased \$200 more per month, making a total deficit of \$4,800 annually. While this is a large deficit, it is not less than could be expected when there is taken into consideration the fact that the Hospital is absolutely without any endowment, and is dependent entirely upon the charity of its friends and the revenue derived from pay patients.

As stated before, there were 464 charity patients—an average of 33 per month. The average stay in the Hospital of these patients was eleven days. It is a minimum estimate that places the total cost of maintenance of a free patient at less than \$1 per diem (the District of Columbia government pays \$1.25 per diem in those hospitals that it con-



tracts with for care of the indigent sick of the District). However, taking \$1 as the cost to the Hospital, \$363 of the average monthly deficit is accounted for. The remainder can be accounted for by the cost of the free dispensary service for the poor. Sickness and injury are never welcome visitors, and nowhere are they more unwelcome than when they come to the poor. The charity wards of the hospital give to these unfortunates what their homes and means cannot—food, medicines, hygienic conditions, and the skillful care and attention of physicians and nurses. The relief of pain and suffering and the restoration to health and usefulness is the purpose of the physician, and the trained nurse is the physician's right hand. *To educate and train both the physician and the nurse is the purpose of this Hospital.* A fixed income to meet the uncertainties and variations of the present sources of the Hospital's revenues would enable it to accomplish easier, maybe better, its purpose. An endowment yielding annually \$5,000 would do this. It is not necessary that this should all come from one sum or one friend. Looking over the reports of other hospitals, one cannot but notice the number of wards, rooms, and beds that are maintained as testimonials of esteem, affection, or gratitude to the memory of some departed friend or relative or given out of sympathy with those whose lot in life has fallen in hard places. *This Hospital, half of the work of which is charity, has not one endowment of any sort.* The deficiency of the receipts of pay patients in the matter of maintaining the Hospital has been met by the unselfish endeavors of the Board of Lady Managers. To them, to their interest, devotion, and generosity of time, effort, patience, and charity the Hospital owes a debt of gratitude which it here acknowledges but cannot repay. The Hospital is also thankful to its many friends for donations of supplies, flowers, magazines, and other articles. It is with regret that separate acknowledgment to every donor cannot be incorporated in this report.

There are a number of improvements that would add materially to the ease of administration and to the comfort of the patients: A steam laundry would obviate the present imperfect system of doing part of the laundry by hand in the Hospital and sending part to be done outside. A plant capable of doing the entire laundry could be erected at a cost of \$3,000. A morgue is needed; the present one is not suitable. The free dispensary ought to be in the basement or in a separate building. The elevator shaft and motor should be enclosed, so as to lessen the noise of operating the elevator. A ventilating shaft or pipe for the kitchen would also be advantageous as minimizing the odors occasionally coming from that department. A motor to operate the dumb-waiter and steam tables in the patients' pantry would both add to the expedition and satisfaction of the service of the dietary department. The corridors, wards, and rooms are in need of repainting.

In concluding, I wish to express my deep obligation to the Resident Physician, Dr. L. H. Taylor, and to the Superintendent of Nurses, Miss Mary Belle Struble, for their indefatigable zeal in their several depart-



ments and for their cordial and hearty coöperation in all matters pertaining to the welfare of the Hospital. I am also indebted to the other members of the Hospital organization for cheerful and hearty discharge of the duties assigned them. It is also not befitting to close this report without a grateful acknowledgment to the friends of the Hospital among the public and the medical profession for their manifestations of continued good will and confidence.

Very respectfully,

W. F. R. PHILLIPS, M.D.  
*Superintendent.*

#### REPORT OF THE RESIDENT PHYSICIAN.

WASHINGTON, D. C., January 30, 1905.

*To the Superintendent of the Hospital.*

SIR: I have the honor to submit the following report of the medical and surgical work done in the Hospital for the 14 months commencing November 1, 1903, and ending December 31, 1904. The number of admissions during the period shows an increase over that of the last annual report, the monthly average being 72 for this year as against 62 for the year previous. Of the total admissions, 1,024 in number, 464, or over 45 per cent, were charity cases. This increase in the number of the charity patients is gratifying not only from a humanitarian point of view, but also as furnishing enlarged facilities for the clinical teaching of medicine and surgery to the students of the University. During the past fall the open wards have been taxed to their utmost capacity, often additional beds having to be brought in, and, on a number of occasions, patients had to be turned away for lack of room to accommodate them. In no department has there been a more marked increase in the number of patients, both private and free, than in the obstetrical, and this is especially gratifying, as it is undoubtedly due to the satisfactory character of the service rendered. The free dispensary service has shown a steady growth until it has reached a point where it taxes our limited quarters. The surgical service has been increased from a tri-weekly to a daily service, and there has been organized in connection therewith a gymnasium equipped especially for orthopedic work. A tabulated statement of cases treated is appended. In conclusion, I wish to express my appreciation of your uniform courtesy and consideration and for the unfailing support you have given me in every effort to increase the efficiency of the medical and surgical work of the institution. I also wish to thank the members of the House Staff for their zeal and attention to duty, and the Superintendent of Nurses for her intelligent coöperation and assistance in my work.

Respectfully,

L. H. TAYLOR, M. D.,  
*Resident Physician.*

## REPORT OF MEDICAL AND SURGICAL CASES TREATED.

November 1, 1903-December 31, 1904.

DISEASE.	Male.	Female.	Cured.	Improved.	Unimproved.	Died.	Average age.
Abortion, inevitable.....		7	7				34
Abortion, preventable.....		2	2				25
Abscess, alveolar.....	1	2	3				22
Abscess, antral.....	2		2				27
Abscess, breast.....		5	5				45
Abscess, frontal sinus.....		1	1				34
Abscess, ischio-rectal.....	3	3	6				30
Abscess, leg.....	2		1	1			50
Abscess, pelvic.....		1				1	43
Abscess, periurethral.....	1		1				33
Abscess, prostatic.....		2	2				35
Abscess, vulva.....		1	1				25
Adenitis, cervical, tubercular.....	4	4	7	1			22
Adenitis, axillary.....		1	1				24
Adenitis, inguinal.....	4		4				23
Adenoma, breast.....		2	2				23
Adenoids, pharyngeal.....	1	1	2				17
Alcoholism, acute.....	34	1	28	7			36
Alcoholism, chronic.....	3	2		5			53
Anemia, pernicious.....		1		1			45
Anemia, secondary.....		2	2				
Aneurism, aorta-arch.....	2			2			35
Aneurism, aorta, thoracic.....	1					1	34
Angioma, cheek.....		1	1				
Angina pectoris.....	1		1				57
Appendicitis, acute catarrhal.....	25	12	34	3			27
Appendicitis, acute gangrenous.....	1	2	3				40
Appendicitis, acute suppurative.....	7	2	7			2	30
Appendicitis, chronic.....	12	5	14	3			31
Arthritis, deformans.....		1			1		25
Arthritis, suppurative.....	3		2	1			37
Arthritis, tubercular.....		2		2			
Asthma, bronchial.....		1		1			
Asthenia.....	1	1	2				24
Bronchitis, acute.....	1	10	10	1			50
Bronchitis, subacute.....	1		1				45
Bronchitis, chronic.....	3	1	2	2			53
Burns, face and hands.....		1	1				47
Burns, universal.....	1	1	2				
Carcinoma, bladder.....	1					1	62
Carcinoma, breast, unilateral.....		8	5	2		1	43
Carcinoma, breast, bilateral.....		1	1				38
Carcinoma, cecum.....	1			1			44
Carcinoma, gastric.....	1	3		3	1		49
Carcinoma, gastric and hepatic.....	2	1				3	55
Carcinoma, larynx.....	1				1		46



## Medical and Surgical Cases Treated—Continued.

DISEASE.	Male.	Female.	Cured.	Improved.	Unimproved.	Died.	Average age.
Carcinoma, neck.....	1				1		51
Carcinoma, pylorus.....		1			1		47
Carcinoma, uterus.....		5		2		3	50
Carbuncle, neck.....	6		5	1			48
Caruncle, urethral.....		2	2				42
Cataract.....	5	6	10	1			54
Cellulitis, orbital.....		1		1			33
Cholecystitis, catarrhal.....	1	1	2				43
Cholecystitis, suppurative.....	1		1				
Cholelithiasis.....	1	2	3				48
Cirrhosis, atrophic.....	2			1		1	49
Coccygodynia.....		1	1				23
Colic, intestinal.....	1		1				26
Colic, renal.....	2		2				35
Colitis, ulcerative.....	3	4	5			2	55
Concussion, spinal.....	1	1	2				23
Crush, toe.....	1		1				
Cystitis.....	2	3	3	2			35
Cystic degeneration of ovary.....		9	8	1			33
Deflected septum nasi.....	4	2	6				30
Delirium tremens.....	1	1	2				25
Dementia, post operative.....		1		1			
Dementia, post apoplectic.....		1		1			68
Dementia, precox.....	2			1	1		
Dementia, senile.....	3	1		1	3		79
Diabetes, mellitus.....		1		1			50
Dislocation, hip.....		1	1				
Dysentery, amebic.....	2			2			29
Empyema.....	2		2				22
Endocarditis.....	2	4	1	4	1	1	32
Endocervicitis.....		2	1	1			
Endometritis.....		33	30	3			30
Enteritis.....	2			1	1		
Enteritis, tubercular.....		2		1		1	40
Enteroptosis.....		1		1			52
Epididymitis.....	1		1				30
Epilepsy.....	3	1	1	3			20
Epithelioma, cervix.....		1	1				40
Epithelioma, face.....	1	3	2	2			55
Epithelioma, lip.....	1			1			35
Epithelioma, pharynx.....	1				1		67
Erysipelas, facial.....	1	1	1	1			29
Exostosis, metatarsal.....	1		1				45
Fecal impaction.....	2		2				
Fibroid uterus.....		3	3				35
Fissure in ano.....	2		2				
Fistula, fecal.....	2		2				48
Fistula, anal.....	5	3	5	3			30



## Medical and Surgical Cases Treated—Continued.

DISCASE.	Male.	Female.	Cured.	Improved.	Unimproved.	Died.	Average age
Fistula, urethral.....	2		2				35
Fistula, recto-vaginal.....		1	1				53
Fracture, colles, bilateral....		1	1				30
Fracture, femur.....	1	1	2				23
Fracture, humerus.....	1		1				30
Fracture, humerus ununited.....	1			1			28
Fracture, patella.....	1	1	1	1			40
Fracture, radius and ulna compound.....	1		1				12
Fracture, Potts.....	1		1				35
Fracture, skull, vault, simple.....	1	1	2				17
Fracture, tibia.....		1	1				
Fracture, tibia and fabula, compound.....	2		2				18
Gangrene, diabetic, toe.....	1			1			41
Gangrene, senile, leg.....	1				1		58
Gangrene, traumatic, leg.....	1		1				26
Gastralgia.....		1		1			35
Gastritis, acute.....	7		6				31
Gastritis, chronic.....	6	3		8	1		
Gastritis, chronic, and neuritis.....		1	1				30
Gastro-enteritis, acute.....	6	3	7	2			
Gastro-enteritis, chronic.....	1	1		2			40
Glenard's disease.....		2		2			30
Gonorrhea, acute.....	5		4	1			26
Gonorrhea and orchitis.....	1		1				23
Hemorrhoids.....	11	5	15	1			48
Hemorrhage, cerebral.....	6	2	2	3		3	59
Hemorrhage, secondary.....	1		1				25
Halux valgus.....	1		1				
Hemiplegia.....	2	2	1	2	1		60
Hepatitis.....	1			1			45
Hernia, femoral.....		2	2				41
Hernia, inguinal.....	13	2	14	1			
Hernia, inguinal bilateral.....	2		2				31
Hernia, umbilical, strangulated.....		1				1	54
Herpes zoster.....		1	1				52
Hydrocele.....	3		2	1			
Hysteria.....	1	9	4	6			25
Hypospadias.....	1			1			
Influenza.....	17	17	34				28
Insanity, acute delusional.....		2		2			60
Insanity, post epileptic.....	1			1			
Intestinal obstruction, acute.....	1		1				26
Intestinal obstruction and lobar pneumonia.....	1					1	28
Iritis.....	1			1			32
Laceration, cervix.....		2					
Laceration, cervix and perineum.....		3	3				35
Laceration, perineum.....		7	7				32
Lipoma, thigh.....		1	1				

## Medical and Surgical Cases Treated—Continued.

DISEASE.	Male.	Female.	Cured.	Improved.	Unimproved.	Died.	Average age.
Locomotor ataxia.....		1			1		
Lumbago.....	2	1	3				
Malaria, tertian.....	3	1	4				25
Malaria, quartan.....	1	2	2	1			24
Malaria, festivo-autumnal.....	1			1			27
Marasmus.....		1	1				
Mania, acute.....	1			1			
Mastoiditis.....		1	1				48
Melancholia.....		1		1			25
Meningitis following mastoiditis.....	1	1				2	28
Mitral stenosis.....	1			1			50
Mitral insufficiency.....	3	1		3		1	55
Morphinomania.....	1	5		5	1		39
Myalgia.....	1	1	2				18
Necrosis, femur.....	1			1			
Necrosis, inferior maxilla.....	1			1			
Necrosis, ribs.....	1			1			44
Necrosis, superior maxilla.....		1	1				
Necrosis, tibia.....	1	1	1	1			35
Nephrolithiasis.....	1			1			28
Nephroptosis.....		3	2	1			33
Nephritis, acute.....	6	3	2	2		2	35
Nephritis, chronic.....	8	6		9	3	2	55
Neurasthenia.....	9	10	7	12			29
Neurasthenia, cerebral.....		2	1	1			25
Neuritis, peripheral.....		1	1				27
Neuralgia, intercostal.....		1	1				
Obstipation.....	1	2	3				
Ophthalmia, gonorrheal.....	1		1				32
Optic atrophy.....		1			1		26
Orchitis.....	2		2				30
Osteomyelitis, tibia.....	3		2	1			16
Osteo-sarcoma, inferior maxilla.....	1			1			62
Otitis media, suppurative.....	1	2	2	1			40
Panophthalmitis.....	1		1				35
Paraplegia.....	1			1			35
Paresis, general.....	1			1			
Peritonitis, tubercular.....	1					1	25
Periostitis.....	2	2	2	2			30
Phimosis.....	6		6				17
Phlebitis.....		1	1				35
Pleurisy, acute.....	1	1	1	1			27
Pleurisy, chronic, with effusion.....	1	1	1		1		28
Pleurisy, chronic, dry.....	1			1			30
Pleurodynia.....	1		1				
Pneumonia, broncho.....	1	3	1			3	
Pneumonia, lobar.....	10	5	13			2	23
Poisoning, ptomaine.....	1					1	47



## Medical and Surgical Cases Treated—Continued.

DISEASE.	Male.	Female.	Cured.	Improved.	Unimproved.	Died.	Average age.
Pregnancy; tubal, ruptured.		3	2			1	
Prostatitis, suppurative.	6		4	2			25
Prostatic hypertrophy.	5		4			1	70
Prostatic hypertrophy, vesical calculus.	3		2			1	67
Pseudocyesis.		2	2				
Pterygium.	2		2				25
Purpura.		1		1			
Pyelonephritis.	1					1	23
Pyosalpinx, unilateral.		3	3				30
Pyosalpinx, double.	13	11	1			1	26
Pyemia.	1					1	45
Retained secundines.		2	2				
Retention of urine, acute.	1		1				
Retroversion uteri.		5	3	2			45
Rheumatism, articular acute.	4	5	7	2			24
Rheumatism, articular subacute.	1	3	4				35
Rheumatism, articular chronic.		1		1			33
Rheumatism, muscular.	4	3	5	2			30
Salpingo-oöphoritis.		4	4				
Sarcoma, knee.	1		1				37
Sciatica.		1	1				
Senility.	1				1		89
Septicæmia.		3	2			1	21
Sinusitis maxillary, suppurative.		1	1				
Sinusitis frontal.		1	1				
Spina bifida.	1		1				
Sprain, ankle.	1	1	1	1			55
Strongyloides intestinalis.		1		1			41
Stenosis, nasal duct.	1	1	2				
Stricture, urethral.	4		2	2			33
Synovitis, traumatic.		2	2				
Syphilis.	9	2	1	10			37
Talipes, equino varus.	3	1	4				
Thecitis, tubercular.	1			1			41
Thrombosis, cerebral.	1					1	60
Tonsillitis, follicular.	10	4	14				27
Tonsillitis suppurative.	2	1	3				
Tuberculosis, general miliary.	1					1	53
Tuberculosis, pulmonary.	5	3		6	1	1	25
Tuberculosis, renal.	1			1			
Tumor, cerebral.		1		1			
Typhoid fever.	27	30	52			5	
Ulcer, foot.	1		1				
Ulcer, gastric.		4	2	2			23
Ulcer, rectum and sigmoid.	1	1	1	1			38
Ulcer, palate, perforating.	1		1				35
Ulcer, varicose, leg.	1		1				35
Uncinariasis.	1			1			23



## Medical and Surgical Cases Treated—Continued.

DISEASE.	Male.	Female.	Cured.	Improved.	Unimproved.	Died.	Average age.
Undiagnosed .....	5	5	4	6			
Uremia.....	11		11				23
Varicocele.....	1		1				
Varicocele and hydrocele.....	1		1				35
Varicose veins, leg.....	3		2			1	74
Vesical calculus.....		1	1				25
Vomiting of pregnancy .....		3	3				
Wounds, contused, body.....	1		1				
Wounds, contused, eye.....	3	1	4				
Wounds, contused, head.....	1	1	2				
Wounds, contused, hip.....	1		1				
Wounds, gunshot, thigh.....	1	1	2				
Wounds, incised, arm.....	1		1				
Wounds, infected, abdomen.....	1		1				
Wounds, infected, feet and hands.....	1	1	2				
Wounds, lacerated, body.....	4		4				
Wounds, lacerated, scalp.....	1		1				
Wounds, lacerated, thigh.....		2	2				

## REPORT OF SURGICAL OPERATIONS.

November 1, 1903-December 31, 1904.

OPERATION.	DIAGNOSIS.	No.
Adenectomy, axillary.....	Adenitis, tubercular, axillary.....	1
Adenectomy, cervical.....	Adenitis, tubercular, cervical.....	6
Adenectomy, inguinal.....	Adenitis, inguinal.....	4
Amputation, breast.....	Carcinoma, breast.....	9
Amputation, breast, bilateral.....	Carcinoma, breast.....	1
Amputation, cervix uteri.....	Epithelioma, cervix.....	1
Amputation, leg.....	Osteomyelitis, tibia.....	2
Amputation, thigh.....	Sarcoma, knee.....	1
Amputation, thigh.....	Cellulitis, leg.....	1
Amputation, toe.....	Gangrene, diabetic.....	1
Amputation, toe.....	Hammer toe.....	2
Appendectomy.....	Appendicitis.....	50
Appendectomy with drainage.....	Appendicitis.....	5
Arthrotomy.....	Arthritis, suppurative.....	3
Aspiration, thoracic.....	Chronic pleurisy with effusion.....	1
Bottini, prostatotomy.....	Prostatic hypertrophy.....	2
Cast application.....	Colles fracture, bilateral.....	1
Cast application.....	Potts fracture, bilateral.....	1
Cast application.....	Fracture, tibia and tibia.....	1
Cast application.....	Fracture, femur.....	2
Cast application.....	Tubercular arthritis knee joint.....	2
Castration.....	Gumma, testicle.....	1
Castration.....	Orchitis, suppurative.....	1
Cataract extraction.....	Cataract.....	14
Cholecystotomy.....	Cholecystitis.....	2
Cholelithotomy.....	Gall stones and cholecystitis.....	1
Circumcision.....	Phimosis.....	8
Circumcision.....	Paraphimosis.....	1
Curettment of antrum.....	Antral abscess.....	2
Curettment of radius.....	Necrosis of radius.....	5
Curettment of tibia.....	Osteomyelitis, tibia.....	2
Curettage.....	Inevitable abortion.....	5
Curettage.....	Endometritis.....	31
Curettage.....	Retained secundines.....	2
Curettage and trachelorrhaphy.....	Endometritis and laceration cervix.....	2
Cystotomy, perineal.....	Vesical calculus.....	1
Cystoscopic examination.....	.....	6
Entorrorrhaphy.....	Perforation of ileum.....	2
Entorrorrhaphy.....	Fæcal fistula.....	2
Entero-enterostomy.....	Intestinal obstruction, chronic.....	2
Extraction of eyeball.....	Pan-opthalmitis.....	1
Excision of cheek and cervical glands.....	Epithelioma of face.....	2
Excision of caruncle.....	Urethral caruncle.....	2
Excision of fistulous tract.....	Fistula in ano.....	5
Excision of hæmorrhoids.....	.....	.....
clamp and cautery.....	Hæmorrhoids.....	2
ligation.....	Hæmorrhoids.....	12
Marcey's.....	Hæmorrhoids.....	2
Whitehead's.....	Hæmorrhoids.....	2



## Report of Operations—Continued.

OPERATION.	DIAGNOSIS.	No.
Excision of inferior maxilla.....	Necrosis of inferior maxilla.....	1
Excision of inferior maxilla.....	Osteosarcoma of inferior maxilla.....	1
Excision of inferior maxilla.....	Osteo-epithelioma.....	1
Excision of tongue.....	Epithelioma.....	8
Excision of tumor.....	Angioma of cheek.....	1
Excision of tumor.....	Adenoma of breast.....	1
Excision of tumor.....	Fibroma of shoulder.....	1
Excision of ulcers.....	Ulcers of rectum.....	3
Excision of pterygium.....	Pterygium.....	2
Gastro-enterostomy.....	Carcinoma, gastric.....	1
Herniotomy, femoral.....	Hernia, femoral.....	3
Herniotomy, inguinal.....	Hernia, inguinal.....	17
Herniotomy, inguinal and bilateral.	Hernia, inguinal and bilateral.....	2
Hysterectomy, abdominal.....	Carcinoma, uterus.....	7
Hysterectomy, abdominal.....	Fibroid, uterus.....	3
Hysterectomy, vaginal.....	Fibroid, uterus.....	1
Incision and drainage of.....	Abscess, coccygeal.....	1
Incision and drainage of.....	Abscess, alveolar.....	2
Incision and drainage of.....	Abscess, ischio-rectal.....	5
Incision and drainage of.....	Abscess, pelvic.....	1
Incision and drainage of.....	Abscess, perineal.....	2
Incision and drainage of.....	Abscess, mammary.....	2
Incision and drainage of.....	Abscess, submaxillary.....	1
Incision and curettment of.....	Abscess, mammary gland.....	5
Incision and curettment of.....	Carbuncle, neck.....	1
Laparotomy, exploratory.....	Aneurism, aorta, thoracic.....	1
Laparotomy, exploratory.....	Cirrhosis of liver.....	1
Laparotomy, exploratory.....	Intestinal obstruction, acute.....	2
Laparotomy, exploratory.....	Peritonitis, tubercular.....	1
Laparotomy, exploratory.....	Undiagnosed.....	1
Lithotomy, perineal.....	Vesical calculus.....	2
Mastoidiectomy.....	Mastoiditis.....	1
Nephrectomy.....	Nephritis, hæmorrhagic.....	1
Nephrectomy.....	Tuberculosis of kidney.....	1
Nephropexy.....	Nephroptosis.....	3
Osteoplasty.....	Fracture, olecranon.....	1
Osteotomy, double cuneiform.....	Halux valgus.....	1
Osteotomy, tibial.....	Halux valgus.....	1
Osteotomy and wiring.....	Ununited fracture of humerus.....	1
Pan-hysterectomy.....	Carcinoma of uterus and adnexia.....	1
Perineorrhaphy.....	Laceration of perineum.....	7
Plastic operation on nasal duct.....	Stenosis of nasal duct.....	2
Plastic operation for repair.....	Hypospadias.....	1
Plastic operation for repair.....	Urethral fistula.....	1
Plastic operation on vaginal wall.....	Recto-vaginal fistula.....	1
Prostatectomy perineal.....	Prostatic hypertrophy.....	6
Prostatectomy suprapubic.....	Prostatic hypertrophy.....	1
Prostatectomy combined.....	Carcinoma prostate.....	1
Radical operation for cure of.....	Hydrocele.....	3
Radical operation for cure of.....	Varicocele.....	12
Radical operation for cure of.....	Varicose veins, open.....	3



## Report of Operations—Continued.

OPERATION.	DIAGNOSIS.	No.
Radical operation for.....	Varicose veins, subcutaneous.....	1
Resection cecum.....	Carcinoma cecum.....	1
Resection coccyx.....	Coccygodynia.....	1
Resection rectum, partial.....	Carcinoma rectum.....	1
Resection rib.....	Necrosis of rib.....	1
Resection rib.....	Osteomyelitis rib.....	1
Salpingectomy.....	Pyosalpinx.....	3
Salpingo-oöphorectomy.....	Salpingo-oöphoritis, suppurative.....	5
Salpingo-oöphorectomy.....	Tubal pregnancy.....	1
Salpingo-oöphorectomy.....	Cystic degeneration of ovaries.....	1
Salpingo-oöphorectomy, double.....	Pyo-salpinx, bilateral.....	9
Sequestrotomy.....	Necrosis femur.....	1
Sequestrotomy.....	Osteomyelitis tibia.....	2
Skin graft.....	Chronic ulcer.....	4
Straightening septum.....	Deflected septum nasi.....	5
Tenotomy.....	Talipes equimo-varus.....	1
Thoracotomy and drainage.....	Abscess, pulmonary.....	2
Tonsilotomy.....	Hypertrophy of tonsils.....	1
Trephine.....	Fracture, skull, depressed.....	1
Trephine.....	Abscess, frontal sinus.....	2
Trachelorrhaphy.....	Laceration cervix.....	5
Urethrotomy, external.....	Stricture urethra.....	2
Ventral suspension.....	Retroflexion uteri.....	1
Wiring patella.....	Fracture patella.....	1
Wiring fragments.....	Fracture humerus.....	1

Fluoroscopic examinations.....	21
Cystoscopic examinations.....	4
X-Ray treatments.....	23
Pregnancies and deliveries.....	81

## Summary of Out-Patient Department.

	New cases.	Re-visits.	
Medical Dispensary.....	275	510	
Surgical Dispensary.....	226	311	
Genito-Urinary Dispensary.....	97	202	
Ear and Throat Dispensary.....	48	108	
Eye Dispensary.....	25	59	
Gynecology Dispensary.....	36	81	
Orthopedic Dispensary.....	15	31	
	722	1,332	
Total number of treatments.....			2,054

## REPORT OF CLINICAL LABORATORY.

WASHINGTON, D. C., December 31, 1904.

*To the Superintendent of the Hospital.*

DEAR SIR : The following work has been done in the Clinical Laboratory since July 6, 1904, when fairly full records begin ; previous records are incomplete :

## Blood examinations :

Red cell counts.....	85
Leucocyte counts.....	115
Hemoglobin estimations.....	91
Examinations for malarial parasites.....	61
Differential leucocyte counts.....	23
Agglutination tests for typhoid fever.....	96
Agglutination test with <i>micrococcus melitensis</i> .....	1
Blood culture from spleen.....	1
Examination of blood from splenic puncture.....	2
Sputum examinations.....	52
Gastric analysis and vomitus.....	18
Feces.....	53
Urine, chemical and microscopical, in each case.....	1,258
Surgical and pathological tissues (since October 15, 1904).....	28
Bladder washings, leucorrheal and urethral discharges, pleural exudates, conjunctival pus, etc.....	20

In two of the patients whose bladder washings were examined tubercle bacilli were found. Malarial parasites were found in blood from two cases, in one of which was a double tertian and æstivo-autumnal infection ; in the other, æstivo-autumnal. The diagnosis of a case of pernicious anemia was established by blood examination. Four patients whose sputa were examined for tubercle bacilli gave positive results.

Beginning October 15, 1904, this laboratory has looked after the examination of surgical and pathological tissues.

Material for teaching has been supplied by the laboratory to Professor Carroll and Dr. Seibert for use with their classes, besides demonstrations by myself of fresh material to students in the wards. Fresh material is always made available to students, and dried specimens are prepared in numbers for future class-work. In this way living malarial parasites were shown to members of the third and fourth year classes, active *amebæ coli*, *cercomonas intestinalis* in recent stool, motile embryos of *strongyleides intestinalis*, segmenting ova of *uncinaria americana*, and *tenia saginata* and ova. Urines have been furnished, for class demonstration and individual work, showing varying degrees of urine pigment, blood, and bile ; urines of high and low specific gravities, albuminous urines of acid and alkaline reactions, sugar urines of high and low glucose



percentages, pus, a pleural exudate containing albumen over 50 per cent by volume.

Two specimens, carcinoma of the stomach, with the growth on the lesser curvature, and a fourteen-pound liver, were obtained for the museum, and two tumor specimens of value to the class in pathological histology.

The rooms in the Medical School building now used for clinical laboratory purposes and their equipment are entirely satisfactory.

The following students have rendered faithful service in the laboratory : A. N. Tasker, three months ; R. A. Hooe, six months ; D. L. High, two months ; L. L. Whitney, six weeks (six months in the old laboratory), and H. B. Montgomery, three months.

Respectfully submitted.

H. H. DONNALLY, M. D.,  
*Assistant Pathologist in Charge of Laboratory.*

Approved.

JAMES CARROLL, M. D., *Pathologist.*

#### REPORT OF THE PRESIDENT OF THE BOARD OF LADY MANAGERS.

WASHINGTON, D. C., June 12, 1905.

*To the President and Board of Trustees,*

*The George Washington University, Washington, D. C.*

GENTLEMEN : During the year 1904 the George Washington University Hospital was obliged to battle with the necessary friction following changes in its working force ; but in spite of these difficulties I believe the year was a most successful one. However, owing to my small personal knowledge of the administration of the Hospital antedating my assumption of President of the Board of Lady Managers, I take great pleasure in calling your attention to the report made by the Treasurer of the Board.

Respectfully,

(MRS. CHARLES W.) AMY S. RICHARDSON.



# REPORT OF THE TREASURER OF THE BOARD OF LADY MANAGERS.

*Mrs. Shepard S. Everett, Treasurer, in Account with the Board of Lady Managers of the University Hospital, November, 1903, to November, 1904.*

## DR.

November 2. To cash on hand.....	\$105 14
Annual dues.....	435 00
Fines.....	73 25
Sustaining members.....	150 00
Cash donations.....	50 00
For furnishing memorial room.....	203 50
Proceeds of Students' Ball, February 12, 1904.....	1,884 98
From Bedding Committee, Mrs. Chas. Young, Chairman.....	183 50
From Towel Committee, Mrs. H. C. Thompson, Chairman....	32 50
Total.....	\$3,117 87

## CR.

Paid J. J. Edson, Treasurer, Columbian University :

December 8, 1903.....	\$425 00
February 1, 1904.....	150 00
March 7, 1904.....	300 00
March 8, 1904.....	1,855 00
March 28, 1904.....	100 00
April 11, 1904.....	32 50
May 25, 1904.....	83 50
June 14, 1904.....	105 00
Balance on October 31, 1904.....	36 87
Total.....	\$3,117 87

Respectfully submitted.

MRS. SHEPARD S. EVERETT,  
*Treasurer.*

The undersigned report the foregoing account found correct and properly vouched for, and the Treasurer has funds on hand amounting to thirty-six dollars and eighty-seven cents (\$36.87).

MRS. J. D. YEOMANS,  
MRS. MITCHELL CARROLL.

NOVEMBER 7, 1904.

#### INFORMATION FOR PATIENTS IN PRIVATE ROOMS.

The rent of the room is payable weekly in advance. If occupied for less than a full week, rent will be charged at a daily rate slightly in excess of the rate for the week. Parts of days are counted as whole days.

The rent of rooms includes board, medicines, the services of the resident physicians, and the services of the nurses assigned to the ward. It does not include the entire time of any one nurse; each nurse is given the care of four or five patients. It does not include the laundrying of the patient's private apparel. If the patient wishes, such laundrying will be done by the Hospital at its regular rates.

Special nurses will be supplied, when the work of the Hospital will permit, at the rate of \$15 per week. Special graduate nurses may be employed by the patient, if desired, in which case the Hospital will be entitled to \$7 per week for the nurse's board.

Wines, mineral waters, etc., and articles of food not provided in the Hospital dietary will be charged to the patient's account or they may be provided by the patient himself, with the approval of his physician.

All articles of food sent by friends or ordered by the patient himself must be sent to the diet kitchen, from which they will be sent, at the proper time, to the patient.

In surgical cases a fee of \$5 will be charged for the use of the operating-room.

A regular licensed physician must be in attendance upon each patient, and in no case is his fee to be regarded as included in the Hospital charges.

The Hospital will not be responsible for money or valuables kept in the rooms; such articles may be deposited with the Superintendent for safe keeping.

Convalescent patients are not permitted to visit the rooms of other patients.

Visitors are admitted to the private wards between 10 a. m. and 9 p. m. The Hospital must insist that this rule be observed, as it is necessary for the proper care of the patients. Visitors are requested to be as quiet as possible while in the Hospital. They are especially requested to converse quietly in the corridors and sun parlors.

It is earnestly requested that any lack of attention be reported immediately to the Superintendent or to the Superintendent of Nurses.



#### ADMISSION OF PATIENTS TO CHARITY WARDS.

Emergency cases and cases from out of the city will be admitted at any hour. Other cases should apply between 10 a. m. and 6 p. m. Patients able to pay are admitted to the open wards at the rate of \$1 per diem. Those unable to pay are admitted free. Alcoholic, insane, and venereal cases are not admitted.

#### Rules to be Observed by Charity Ward Patients.

All property of value, including money, shall be delivered directly or through the head nurse of the ward to the clerk, who will give a receipt therefor. The Hospital will not be responsible for valuables not thus receipted for.

Patients who are able shall rise in time for breakfast throughout the year.

Talking in the wards after 8 p. m. is prohibited.

Every patient shall be in bed by 8 p. m.

Patients shall behave in a quiet, orderly, and respectful manner toward the nurses and toward their fellow-patients. They shall obey implicitly the directions of the physicians, whether given directly or through a nurse.

All patients who are able shall assist to the best of their ability in maintaining the cleanliness and good order of the wards and in rendering such assistance as may be in their power to the nurse in attending the wants of patients unable to help themselves.

At the regular visits of the physicians every patient shall be in his place. If able to be up, he shall sit in the chair in front of his bed and keep it until the end of the visit.

Each patient shall take only such diet and medicine as may be prescribed for him, and in no case whatever shall he use either the medicine or diet of any other patient.

Patients are prohibited from smoking within the house, spitting on the floor or steps, throwing anything whatever from the windows, going into other rooms or wards without permission, or beyond the limits assigned in the grounds for exercise.

They are prohibited from sitting on the staircases and window sills within the house, from lounging about the halls, and from willfully or carelessly injuring the furniture or any other property of the Hospital.



# REPORT OF THE SUPERINTENDENT OF NURSES AND PRINCIPAL OF THE SCHOOL FOR NURSES.

WASHINGTON, D. C., January 30, 1905.

*To the President and Board of Trustees.*

GENTLEMEN: A change in Superintendent of Nurses was made on June 30, 1904. Miss Minnie Paxton, former Superintendent of Nurses, having resigned, the vacancy was filled July 1 by the appointment of the undersigned.

Since July 1 thirty-six special nurses have been furnished private patients. The income received from this service for the past six months amounted to \$809.95. Special nurses have been furnished charity medical cases in the open wards when in the opinion of the attending physician such service was really necessary for the patient's welfare.

We are in need of a proper and well-equipped diet kitchen, where pupil nurses can better be taught how to prepare suitable food for patients. Some steps have been taken in this direction and we hope before long to be able to meet the household needs of this branch of work.

Through the kindness of the Board of Lady Managers the Nurses' Home, 1328 I street, has been made more comfortable. A larger building is much needed, in order to give every nurse better opportunities for study.

We especially wish to thank the ladies of the Nurses Committee for the receptions and entertainments held at the Home.

A Directory for Nurses has been established in connection with the Hospital. Only such nurses as are found by investigation to be well qualified are permitted to register, and it is intended that registration at the directory shall be, as far as possible, a guarantee of competency and fitness. Calls for nurses will be received by the Secretary of the Directory, who resides in the Hospital, at any hour of the day or night, and every effort will be made to promptly meet the demands of the profession for well-trained, skillful, and reliable nurses.

The School for Nurses will complete its second year February 28, 1905.

Since the last Annual Report a few changes have been made. The number of pupils has increased, thus enabling us to do the greater part of our special nursing, giving the seniors more experience and better fitting them for private duty after they graduate from the school.

In a work where personal contact counts for so much, the manner, characteristics, and acquirements of probationers must be studied, known, and, as far as possible, a just estimate of their abilities obtained. To this end they are placed under the direction of a competent head nurse, with whom they come in daily contact.

More than seventy inquiries relative to admission to the school have

been received. Thirty-four of these have been followed by formal applications for admission.

One nurse has been granted a year's leave of absence on account of illness and another has resigned for like reason. Two other resignations have been accepted. Three nurses were dismissed for inefficiency.

There are now in the school 1 Superintendent of Nurses, 1 head nurse, 22 pupil nurses, 5 probationers.

Respectfully,

MARY BELLE STRUBLE,  
*Superintendent of Nurses and Principal of School for Nurses.*

## THE GEORGE WASHINGTON UNIVERSITY HOSPITAL.

### SCHOOL FOR NURSES.

The School for Nurses is under the general supervision of the President and Board of Trustees, and under the immediate charge of the Superintendent of Nurses, who is the Principal of the School.

#### Admission of Pupils.

Application must be in writing to the Principal of the School and upon blank forms provided therefor (see page 31). Candidates must be 22 years of age and not over 35. They must present satisfactory evidence to the Board of Examiners that they possess preliminary educational qualifications sufficient to profit by the course of training. The Board of Examiners consists of the Superintendent of the Hospital, the Resident Physician, and the Superintendent of Nurses. Applicants approved by the Board of Examiners will be taken for a probationary period of two months, as vacancies may occur. During the probationary period probationers will receive board, lodging, laundry, and, in case of illness, medical attention free. Such probationers as shall be deemed fitted for the duties of nursing at the expiration of their probation will be accepted as pupil nurses, and will be allowed to continue the course in the School upon signing an agreement to remain *three* years in the School and to obey the rules of the Hospital and of the school (see page 26). At any time during the three years a pupil may be dismissed, if in the judgment of the Principal of the School there be sufficient cause for such action, but no dismissal shall be made without the approval of the President. Instruction and training are considered the full equivalent for the service of the pupil nurse; however, an allowance of \$5 a month is made to each pupil nurse during her first year in the school; \$7 a month during her second year, and \$9 during her third year, to cover expenses of uniform, text-books, and other necessary incidentals. The hours of duty and rest are as follows: Pupil nurses on day duty report at 7.30 a. m. and remain until 7.30 p. m. Pupil nurses on night duty report at 7.30 p. m. and remain on duty until 7.30 a. m. Pupils are sent off duty as follows: One to two hours, if work permits, every week day, for rest and recreation; also one half day after 2 p. m. each week and for four hours on Sunday. These hours of rest and recreation are arranged daily to suit the work of the school. A vacation of two weeks will be allowed each year, and in case of senior pupil nurses, a vacation of three or four weeks will be allowed if the hospital duties permit.

#### Course of Training.

The course of training extends over a period of three years. This course includes instruction in practical nursing at the bedside, in class-room in-



struction in theory and ethics of nursing, and in lectures and recitations from text-books upon subjects pertaining to the profession of nursing. Thorough instruction is given in the nursing of medical, surgical, gynecological, and obstetrical cases. Instruction is also given in the selection and preparation of foods for the sick, and in order that this instruction shall be eminently practical, pupils are detailed from time to time for a period of two months under the direction of the housekeeper. They are also instructed in other household duties. The course of lectures is approved by the Faculty of the Department of Medicine, and is conducted by members of the Faculty, by the Superintendent of Nurses, and by the Resident Physician of the Hospital.

The classes are divided for study into junior, intermediate, and senior pupil nurses. All three classes are expected to attend all lectures. Junior nurses during their year study and pass examinations in anatomy, materia medica, physiology, and hygiene. The intermediate pupil nurses in their year study and pass examinations in obstetrics, gynecology, surgery, medicine, and in practical nursing of medical, gynecological, surgical, and obstetrical cases. In their senior year nurses are taught the principles involved in the nursing of diseases of the eye, skin, and other specialties.

Every nurse who remains in the school till the completion of her course will receive a diploma, provided she passes the examination with credit and that her conduct and standing as a nurse have been satisfactory.

THE GEORGE WASHINGTON UNIVERSITY HOSPITAL.  
SCHOOL FOR NURSES.

Application for Admission.

Questions to be answered by candidates :

1. Name in full .....
2. Date and place of birth .....
3. Height ..... feet.....inches. Weight .....
4. Are you strong and healthy mentally and physically, and have you always been so ?
5. Are your sight and hearing perfect ?
6. Have you any physical defects ?
7. Have you ever had any disease of the lungs, or have you any today ?
8. Have you had quinsy and diptheria ; and, if so, when ?
9. Have you ever had any uterine disease ?
10. At what school or schools were you educated ?
11. Give date of graduation.
12. Are you connected with any church ; and, if so, name denomination ?
13. Are you single or a widow ? If a widow, have you any children ? How many ? How provided ?
14. If divorced, kindly state the fact.
15. What has been your occupation ?
16. Have you been connected with any training school for nurses ?
17. Have you ever nursed in a hospital ?
18. Where (if any) was your last situation ? How long were you in it ?
19. Are you free from domestic responsibilities that might interrupt your course in the school ?
20. Give letter from family physician, dentist, and clergyman.
21. Give name in full and address of two persons to be referred to. State how long each has known you. If previously employed, one of these must be the last employer.

1. Name.....  
Address..... who has known me.....years.

2. Name.....  
Address..... who has known me.....years.

I declare the foregoing statement to be correct.

(Signed) .....  
Candidate.

Date....., 1905.

Nearest telegraph station .....



THE GEORGE WASHINGTON UNIVERSITY HOSPITAL.  
SCHOOL FOR NURSES.

WASHINGTON, D. C.,....., 1905.

I, the undersigned, hereby agree to remain as a pupil in the School for Nurses of the University Hospital for the continuous period of three years from....., 1905.

I further engage and agree to serve the Hospital to the best of my ability, and pledge myself to faithfully perform all duties assigned to me, and to cheerfully conform to all the rules now in force or which may from time to time be made.

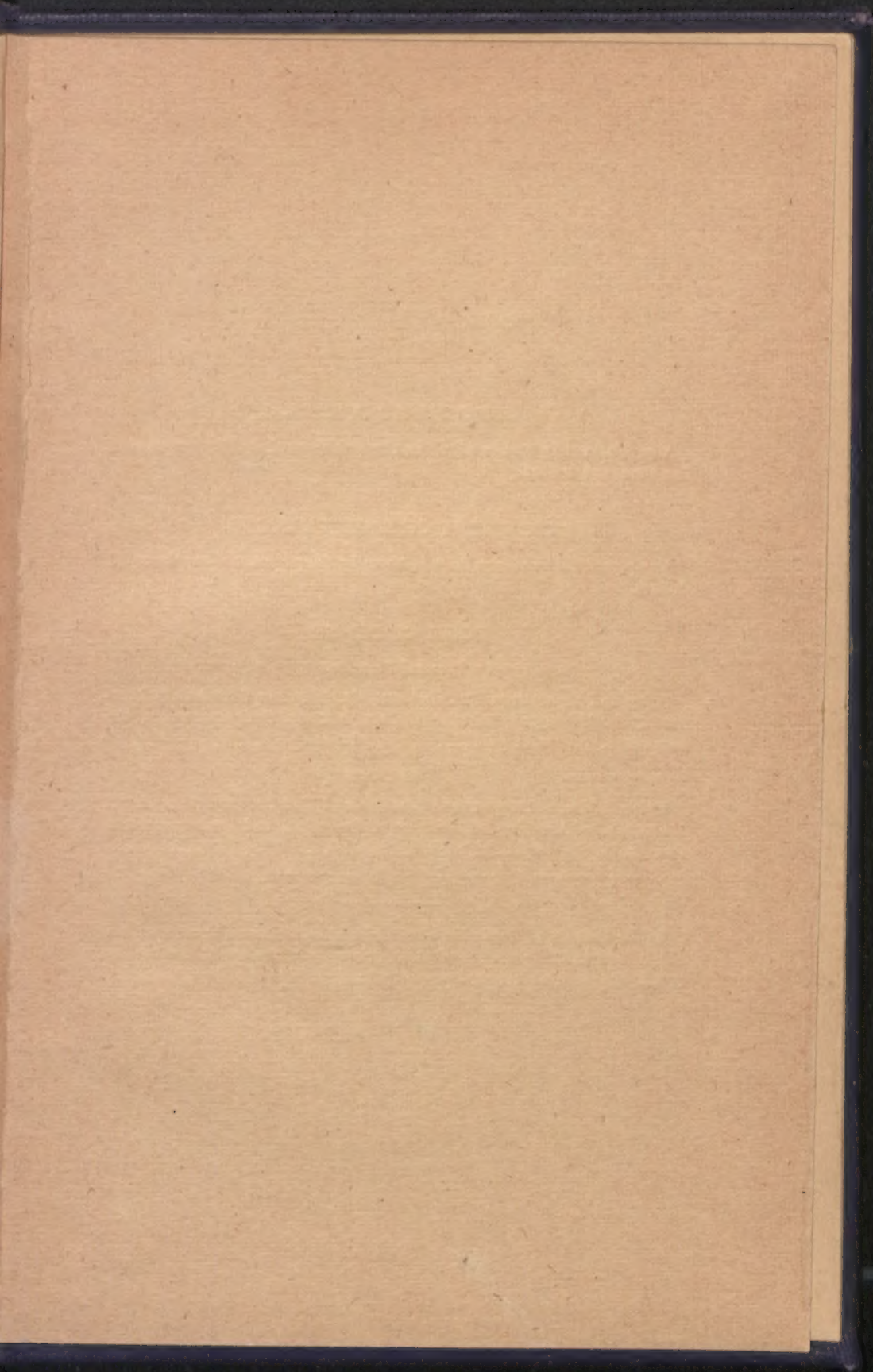
.....  
*Pupil of School for Nurses.*

Address of relative or friend to whom application may be made in case of sickness or other need.

.....  
P. O. address : .....

.....  
Telegraph address : .....







ENDOWMENT OF BEDS.

Any person may endow a bed in the public ward by the payment of five thousand dollars.

ENDOWMENT OF PRIVATE ROOMS.

Any person may endow a Private Room by the payment of ten thousand dollars.

FORM OF DEVISE.

Personal Property.

I give and bequeath to THE GEORGE WASHINGTON UNIVERSITY HOSPITAL, of Washington, District of Columbia, and their successors, the sum of.....dollars.

Real Estate.

I give, devise, and bequeath to THE GEORGE WASHINGTON UNIVERSITY HOSPITAL, of Washington, District of Columbia, and their successors, forever, for the purpose of the said Hospital,.... ..

In the District of Columbia a will of real estate must be attested and subscribed in the presence of the devisor, by three credible witnesses. A will bequeathing personal property does not require to be witnessed.



